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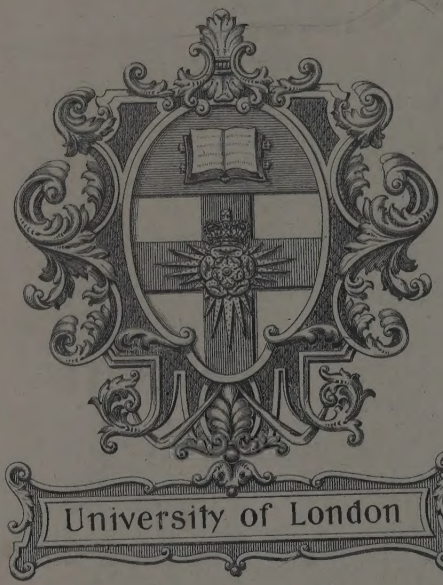
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REPORTS

FROM

COMMISSIONERS, INSPECTORS,

AND OTHERS:

THIRTY-ONE VOLUMES.

—(14.)—

EDUCATION (IRELAND);
NATIONAL EDUCATION (IRELAND);
QUEEN'S COLLEGES; QUEEN'S UNIVERSITY.

Session

8 *February* —— 14 *August* 1877.

VOL. XXXI.

FROM

COMMISSIONERS, INSPECTORS,

AND OTHERS:

1877.

THIRTY-ONE VOLUMES:—CONTENTS OF THE

FOURTEENTH VOLUME.

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THE

FORTY-THIRD REPORT

OF THE

COMMISSIONERS

OF

NATIONAL EDUCATION

IN IRELAND,

FOR THE YEAR 1876.

Presented to both Houses of Parliament by Command of Her Majesty.

DUBLIN:

PRINTED BY ALEXANDER THOM, 87 & 88, ABBEY-STREET,

PRINTER TO THE QUEEN'S MOST EXCELLENT MAJESTY.

FOR HER MAJESTY'S STATIONERY OFFICE.

1877.

[C.—1757.] *Price* 2½*d.*

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THE

FORTY-THIRD REPORT

OF THE

COMMISSIONERS OF NATIONAL EDUCATION IN IRELAND,

FOR THE YEAR 1876.

TO

HIS GRACE JOHN WINSTON DUKE OF MARLBOROUGH, K.G.,

LORD LIEUTENANT-GENERAL AND GENERAL GOVERNOR OF IRELAND.

May it please your Grace,

I.—1. We, the Commissioners of National Education in Ireland, submit to your Grace this our Forty-third Report. In this Report all statements connected with the expenditure of the public grants, and with the results of the Inspectors' examinations, refer to the year ended 31st March, 1877; but the statistics connected with the number of schools, number of pupils on the rolls, and the average daily attendance, refer to the year ended 31st December, 1876.

2. On the 31st of December, 1876, we had 7,334 schools on the Operation List. During the year 1876, 72 schools were struck off the Roll or suspended, and 139 were brought into operation, giving a net increase of 67 as compared with 1875. Of the schools struck off the Roll, 12 were amalgamated with other National schools. Increase of Schools.

3. The number of pupils on the rolls on the last day of the month immediately preceding the annual examinations by the Inspectors, and who actually attended school on any of the fourteen days immediately before that date, was 596,427,* which, compared with 1875, is an increase of 18,886.

4. The average daily attendance of pupils for the year 1876 was 416,586, which, compared with 1875, is an increase of 26,625. The per-centage of average attendance of pupils throughout the year to the number on the rolls who attended on any of the last Increase in average attendance.

* The number of individual pupils on rolls who made any attendance at our schools between 1st of January and 31st of December, 1876, was 1,032,215, which, compared with 1875, shows an increase of 20,416.

fourteen days of the month preceding the annual examinations, is 69·8, which is an improvement of 2·3 upon the *quality of* the attendance in 1875. These per-centages in 1875 were—in England and Wales, 66·8; Scotland, 75·; Ireland, 67·5.

Number of schools in operation, and children in average daily attendance.

5. The following Table exhibits the number of National Schools, as specified in our several Reports, together with the average daily attendance for each of the last twenty years, to the 31st of December, 1876:—

Year.	No. of Schools in Operation.	No. of Children in Average Attendance.	Year.	No. of Schools in Operation.	No. of Children in Average Attendance.
1857,	5,337	268,397	1867,	6,520	321,683
1858,	5,408	266,091	1868,	6,586	354,853
1859,	5,496	269,203	1869,	6,707	358,560
1860,	5,632	262,823	1870,	6,806	359,199
1861,	5,830	284,726	1871,	6,914	363,850
1862,	6,010	284,912	1872,	7,050	355,821
1863,	6,163	296,986	1873,	7,160	373,371
1864,	6,263	315,108	1874,	7,257	395,390
1865,	6,372	321,209	1875,	7,267	389,961
1866,	6,453	316,225	1876,	7,334	416,586

Applications for grants to new schools.

6. The number of applications for grants to new schools in the year 1876 was 196. In 149 cases we gave the required assistance, either as grants for building, or grants of requisites and in aid of salaries. The remaining 47 applications were rejected for various reasons.

New schools.

7. The annexed Tabular Return of the 149 Schools added to our list during the Year 1876 (viz., 112 schools in operation, and 37 building grants), shows the Number in each Province, with the Nature of the Aid Granted.

Province.	Requisites, Salary, and Results Fees.	Towards Building and Furnishing Schools.	Total.
Ulster, . .	58	3	61
Munster, . .	19	26	45
Leinster, . .	18	–	18
Connaught, .	17	8	25
Total, . .	112	37	149

Vested schools opened, &c.

8. Twenty-seven vested schools, towards the erection of which grants had been previously made, were opened for the reception of pupils during the year.

Vested schools.

9. At the termination of the year 1876, we had on our list 2,127 vested schools. The number vested in trustees was 1,211:

the number vested in our Board (including 146 assigned) was 821: the number for which we held bonds for the observance of our rules was 95—total, 2,127. Of this total number, 165 schools, to which building grants are outstanding, are not yet in operation.

10. The number of non-vested schools in connexion with us on the 31st of December, 1876, was 5,207. Number non-vested.

11. The following Table shows the distribution of schools according to provinces, and the attendance of pupils:— Operation Schools and daily attendance.

Province.	Total Operation Schools.	Total No. of Schools from which returns have been received.	No. of Pupils who attended once or oftener within last fourteen days of Results Year.	Average daily attendance for the year ending 31st December, 1876.
Ulster, . . .	2,764	2,715	200,448	143,291
Munster, . .	1,845	1,826	177,136	125,270
Leinster, . .	1,553	1,507	121,267	85,493
Connaught, . .	1,172	1,120	97,576	62,532
Total, . .	7,334	7,168	596,427	416,586
Average Number of Pupils per School, . .			83·2	58·1

12. The next Table shows the Number of the new schools under Managers of each religious denomination—distinguishing clerical from lay. Religion of Managers of New Schools.

Religious Denominations.	Clerical.		Lay.		Total.	
	No. of Managers.	No. of Schools.	No. of Managers.	No. of Schools.	No. of Managers.	No. of Schools.
R.C.,*	62	77	4	6	66	83
E.C.,*	31	32	17	17	48	49
Pres.,*	12	12	2	2	14	14
Others,* . . .	–	–	1	1	1	1
Total, . .	105	121	24	26	129	147

The remaining 2 new schools are Poor Law Union Schools, under official management.

13. In the following Tables, having reference to the religious denominations of the pupils, the Returns include *all the pupils* who made any attendance at our schools on any day between the 1st of January and the 31st of December, 1876.

* Throughout this Report "R.C." denotes Roman Catholics; "E.C.," members of the late Established Church; "Pres.," Presbyterians and "Others," persons of other religious denominations.

TABLE showing the RELIGIOUS DENOMINATIONS of the PUPILS on the Rolls Mixed Attendance of ROMAN

PROVINCES AND COUNTIES.	Total No. of Schools.	Under Protestant Teachers.						Under	
		No. of Schools.	R.C.	E.C.	Pres.	Others.	Total.	No. of Schools.	R.C.
ULSTER.									
Antrim,	373	289	4,229	11,759	29,597	1,865	47,450	71	8,954
Armagh,	170	105	2,083	6,359	4,274	433	13,149	57	7,989
Cavan,	190	25	561	1,387	657	69	2,674	158	18,221
Donegal,	265	109	4,469	3,164	3,271	311	11,215	155	17,629
Down,	276	183	3,085	6,529	15,028	813	25,455	88	10,387
Fermanagh,	133	37	789	2,761	157	171	3,878	92	7,797
Londonderry,	225	157	3,559	4,118	9,309	350	17,336	64	7,281
Monaghan,	150	49	1,274	1,856	1,912	54	5,096	98	13,911
Tyrone,	306	149	3,716	5,566	6,367	398	16,047	152	14,833
Total,	2,088	1,103	23,765	43,499	70,572	4,464	142,300	935	107,002
MUNSTER.									
Clare,	74	2	3	45	–	–	48	72	11,113
Cork,	240	20	217	1,215	92	75	1,599	215	31,073
Kerry,	116	2	57	37	–	–	94	114	22,473
Limerick,	93	1	10	52	23	–	85	89	13,109
Tipperary,	144	7	439	221	25	50	735	135	16,878
Waterford,	48	1	2	46	2	–	50	45	6,069
Total,	715	33	728	1,616	142	125	2,611	670	100,715
LEINSTER.									
Carlow,	34	3	29	147	–	–	176	31	3,523
Dublin,	105	15	336	783	150	48	1,317	73	11,210
Kildare,	56	2	50	54	5	12	121	54	7,311
Kilkenny,	75	3	100	108	8	1	217	70	7,428
King's,	62	1	5	26	–	4	35	58	6,604
Longford,	63	5	114	235	55	–	404	58	8,004
Louth,	44	2	53	61	31	6	151	42	5,419
Meath,	101	4	19	103	25	4	151	95	10,056
Queen's,	53	6	63	331	5	1	400	47	5,987
Westmeath,	58	2	2	101	6	27	136	56	6,525
Wexford,	68	1	1	28	11	2	42	67	7,918
Wicklow,	61	2	58	115	1	–	174	55	6,850
Total,	780	46	830	2,092	297	105	3,324	706	86,835
CONNAUGHT.									
Galway,	103	3	152	72	25	16	265	97	15,695
Leitrim,	116	17	386	942	9	46	1,383	99	12,378
Mayo,	112	6	215	237	95	6	553	106	18,688
Roscommon,	87	3	144	59	3	–	206	84	12,330
Sligo,	116	7	162	187	71	46	466	108	16,561
Total,	534	36	1,059	1,497	203	114	2,873	494	75,652
GRAND TOTAL,	4,117	1,218	26,382	48,704	71,214	4,808	151,108	2,805	370,204

of the 4,117 SCHOOLS from which Returns have been received, exhibiting a CATHOLICS and PROTESTANTS.

Roman Catholic Teachers.				Under Protestant and Roman Catholic Teachers.					PROVINCES AND COUNTIES.
E.C.	Pres.	Others.	Total.	No. of Schools	R.C.	E.C.	Pres.	Others.	Total.	
										ULSTER.
330	1,140	34	10,458	13	847	1,216	2,143	280	4,486	Antrim.
946	282	14	9,231	8	371	555	455	122	1,503	Armagh.
1,247	207	9	19,684	7	865	153	158	7	1,183	Cavan.
1,413	321	47	19,910	1	149	27	13	10	199	Donegal.
1,103	997	60	12,547	5	359	317	1,079	81	1,836	Down.
2,611	52	33	10,493	4	82	261	47	59	449	Fermanagh.
455	333	10	8,579	4	116	136	304	43	599	Londonderry.
645	575	–	15,131	3	219	194	139	11	563	Monaghan.
2,417	1,291	69	18,610	5	346	296	253	40	935	Tyrone.
11,167	6,198	276	124,643	50	3,354	3,155	4,591	653	11,753	Total.
										MUNSTER.
264	17	3	11,397	–	–	–	–	–	–	Clare.
776	29	18	31,896	5	703	414	34	80	1,231	Cork.
406	3	3	22,885	–	–	–	–	–	–	Kerry.
279	10	25	13,423	3	88	167	36	58	349	Limerick.
565	19	9	17,471	2	108	34	4	2	148	Tipperary.
146	21	13	6,249	2	74	100	25	29	228	Waterford.
2,436	99	71	103,321	12	973	715	99	169	1,956	Total.
										LEINSTER.
182	–	–	3,705	–	–	–	–	–	–	Carlow.
385	29	7	11,631	17	3,118	1,308	261	136	4,823	Dublin.
291	69	7	7,678	–	–	–	–	–	–	Kildare.
252	8	2	7,690	2	8	150	17	11	186	Kilkenny.
312	18	–	6,934	3	84	139	13	29	265	King's.
254	28	10	8,296	–	–	–	–	–	–	Longford.
156	45	1	5,621	–	–	–	–	–	–	Louth.
353	34	–	10,443	2	177	21	–	–	198	Meath.
231	5	–	6,223	–	–	–	–	–	–	Queen's.
223	22	–	6,770	–	–	–	–	–	–	Westmeath.
304	37	8	8,267	–	–	–	–	–	–	Wexford.
277	10	9	7,146	4	291	47	–	–	338	Wicklow.
3,220	305	44	90,404	28	3,678	1,665	291	176	5,810	Total.
										CONNAUGHT.
366	22	2	16,085	3	41	86	62	31	220	Galway.
835	16	6	13,235	–	–	–	–	–	–	Leitrim.
447	45	10	19,190	–	–	–	–	–	–	Mayo.
351	27	–	12,708	–	–	–	–	–	–	Roscommon.
689	35	21	17,306	1	7	76	34	44	161	Sligo.
2,688	145	39	78,524	4	48	162	96	75	381	Total.
19,511	6,747	430	396,892	94	8,053	5,697	5,077	1,073	19,900	GRAND TOTAL.

Provinces and Counties.	Attendance for the Year.							
	Total Number of Pupils on Rolls within the Year 1876, who made at least one Attendance.			Religious Denominations of the *Total* Number on the Rolls for the Year 1876, who made at least one Attendance.				
	Males.	Females.	Total.	R.C.	E.C.	Pres.	Others.	Total.
Ulster:								
Antrim,	47,625	45,357	92,982	24,287	17,689	47,791	3,215	92,982
Armagh,	17,774	15,848	33,622	17,056	9,643	5,997	926	33,622
Cavan,	15,487	14,654	30,141	25,540	3,409	1,073	119	30,141
Donegal,	23,244	19,802	43,046	33,234	4,949	4,491	372	43,046
Down,	29,652	26,632	56,284	17,360	11,551	26,097	1,276	56,284
Fermanagh,	9,023	7,617	16,640	9,720	6,321	278	321	16,640
Londonderry,	16,338	14,838	31,176	13,318	5,458	11,897	503	31,176
Monaghan,	12,474	11,310	23,784	17,457	3,187	3,059	81	23,784
Tyrone,	22,502	18,610	41,112	23,100	8,956	8,482	574	41,112
Total,	194,119	174,668	368,787	181,072	71,163	109,165	7,387	368,787
Munster:								
Clare,	16,249	15,616	31,865	31,536	309	17	3	31,865
Cork,	49,847	52,314	102,161	96,999	4,473	314	375	102,161
Kerry,	23,819	24,224	48,043	47,334	667	10	32	48,043
Limerick,	17,152	20,605	37,757	36,980	616	69	92	37,757
Tipperary,	20,067	20,432	40,499	39,520	870	48	61	40,499
Waterford,	7,664	8,417	16,081	15,699	292	48	42	16,081
Total,	134,798	141,608	276,406	268,068	7,227	506	605	276,406
Leinster:								
Carlow,	4,166	4,760	8,926	8,277	637	–	12	8,926
Dublin,	23,021	28,489	51,510	47,782	2,927	543	258	51,510
Kildare,	6,214	6,732	12,946	12,370	471	85	20	12,946
Kilkenny,	10,279	10,560	20,839	20,151	633	39	16	20,839
King's,	6,689	7,062	13,751	12,936	710	50	55	13,751
Longford,	7,235	6,089	13,324	12,445	778	91	10	13,324
Louth,	5,933	6,756	12,689	12,162	356	161	10	12,689
Meath,	9,348	8,563	17,911	17,065	763	79	4	17,911
Queen's,	6,660	6,487	13,147	12,271	838	25	13	13,147
Westmeath,	7,338	7,330	14,668	14,161	448	32	27	14,668
Wexford,	8,270	9,741	18,011	17,621	332	48	10	18,011
Wicklow,	6,481	6,067	12,548	12,046	482	11	9	12,548
Total,	101,634	108,636	210,270	199,287	9,375	1,164	444	210,270
Connaught:								
Galway,	22,080	21,698	43,778	43,049	537	143	49	43,778
Leitrim,	12,816	11,662	24,478	22,298	2,027	74	79	24,478
Mayo,	27,206	24,408	51,614	50,691	734	170	19	51,614
Roscommon,	17,238	16,773	34,011	33,473	464	73	1	34,011
Sligo,	11,567	11,304	22,871	21,427	1,132	173	139	22,871
Total,	90,907	85,845	176,752	170,938	4,894	633	287	176,752
Ulster,	194,119	174,668	368,787	181,072	71,163	109,165	7,387	368,787
Munster,	134,798	141,608	276,406	268,068	7,227	506	605	276,406
Leinster,	101,634	108,636	210,270	199,287	9,375	1,164	444	210,270
Connaught,	90,907	85,845	176,752	170,938	4,894	633	287	176,752
Ireland,	521,458	510,757	1,032,215	819,365	92,659	111,468	8,723	1,032,215
Per-centage,	–	–	–	79·4	9·	10·8	·8	–

Mixed Schools.

Average number of Protestant and Roman Catholic pupils in mixed schools.

14. The following tables show, according to provinces, the *average* and also the total number of Roman Catholic and Protestant Pupils in each of the Mixed Schools, in 1876, from which returns have been received.

A.—Under Roman Catholic Teachers exclusively.

Provinces.	Mixed Schools.	Roman Catholic Pupils.	Protestant Pupils.
Ulster,	935	114·4	18·8
Munster,	670	150·3	3·8
Leinster,	706	122·9	5·
Connaught,	494	153·1	5·8

Summary.

No. of Schools.	Roman Catholic Pupils.	Protestant Pupils.	Average per School.	
			Roman Catholics.	Protestants.
2,805	370,204	26,688	131·2	9·5

B.—Under Protestant Teachers exclusively.

Provinces.	Mixed Schools.	Roman Catholic Pupils.	Protestant Pupils.
Ulster,	1,103	21·5	107·4
Munster,	33	22·	57·
Leinster,	46	18·	54·2
Connaught,	36	29·4	50·3

Summary.

No. of Schools.	Roman Catholic Pupils.	Protestant Pupils.	Average per School.	
			Roman Catholics.	Protestants.
1,218	26,382	124,726	21·6	102·4

C.—Under Roman Catholic and Protestant Teachers conjointly.

Provinces.	Mixed Schools.	Roman Catholic Pupils.	Protestant Pupils.
Ulster,	50	67·	167·9
Munster,	12	81·	81·9
Leinster,	28	131·3	76·1
Connaught,	4	12·	83·2

Summary.

No. of Schools.	Roman Catholic Pupils.	Protestant Pupils.	Average per School.	
			Roman Catholics.	Protestants.
94	8,053	11,847	85·6	126·

The following table exhibits the religious denominations of pupils on rolls of 3,044 schools, attended *exclusively* by Roman Catholic or Protestant children:—

Provinces and Counties.	Total Number of Schools.	Under Roman Catholic Teachers.		Under Protestant Teachers.				
		Number of Schools.	No. of Pupils. R. C.	No. of Schools.	No. of Pupils—Protestants. E. C.	Pres.	Others.	Total.
Ulster.								
Antrim,	158	36	10,257	122	4,384	14,911	1,036	20,331
Armagh,	55	28	6,613	27	1,783	986	357	3,126
Cavan,	66	57	5,893	9	622	51	34	707
Donegal,	101	91	10,987	10	345	386	4	735
Down,*	123	20	3,529	103	3,587	8,912	311	12,810
Fermanagh,	16	7	1,052	9	688	22	58	768
Londonderry,*	32	14	2,362	18	706	1,369	85	2,160
Monaghan,	23	12	2,053	11	492	433	16	941
Tyrone,*	39	27	4,205	12	625	481	65	1,171
Total,	613	292	46,951	321	13,232	27,551	1,966	42,749
Munster.								
Clare,	142	142	20,420	–	–	–	–	–
Cork,	418	383	65,006	35	2,068	159	202	2,429
Kerry,	184	179	24,804	5	224	7	29	260
Limerick,	143	141	23,773	2	118	–	9	127
Tipperary,	150	149	22,095	1	50	–	–	50
Waterford,	74	74	9,554	–	–	–	–	–
Total,	1,111	1,068	165,652	43	2,460	166	240	2,866
Leinster.								
Carlow,	34	29	4,725	5	308	–	12	320
Dublin,	122	118	32,925	4	344	98	67	509
Kildare,*	41	39	5,009	2	89	1	–	90
Kilkenny,	98	96	12,615	2	123	6	2	131
King's,	45	40	6,243	5	233	19	22	274
Longford,	37	31	4,327	6	289	8	–	297
Louth,	44	40	6,690	4	139	85	3	227
Meath,	74	66	6,655	8	277	20	–	297
Queen's,	47	42	6,221	5	276	15	12	303
Westmeath,	73	70	7,634	3	124	4	–	128
Wexford,	78	78	9,702	–	–	–	–	–
Wicklow,	34	32	4,847	2	43	–	–	43
Total,	727	681	107,593	46	2,245	256	118	2,619
Connaught.								
Galway,	175	174	27,161	1	13	34	–	47
Leitrim,	77	72	9,534	5	250	49	27	326
Mayo,	176	174	31,788	2	50	30	3	83
Roscommon,	128	126	20,999	2	54	43	1	98
Sligo,	37	34	4,697	3	180	33	28	241
Total,	593	580	94,179	13	547	189	59	795
Grand Total,	3,044	2,621	414,375	423	18,484	28,162	2,383	49,029

* There are five other schools with an unmixed attendance, which cannot be brought under the headings in these tables.

The average number of Roman Catholic and Protestant pupils on rolls in each of these schools, according to Provinces, in 1876, was as follows:—

—	A.—Under Roman Catholic Teachers exclusively.		B.—Under Protestant Teachers.				
	Schools.	R.C. pupils per school.	Schools.	E.C. pupils.	Pres. pupils.	Others.	Protestant pupils per school.
Ulster, . . .	292	160·7	321	41·2	85·3	6·1	133·1
Munster, . .	1,068	155·1	43	57·2	3·8	5·5	66·5
Leinster, . .	681	157·9	46	48·8	5·5	2·5	56·8
Connaught, . .	580	162·3	13	42·	14·5	4·5	61·
Total, . .	2,621	–	423	–	–	–	–
Average per School,	–	158·	–	43·6	66·5	5·6	115·7

15. The per-centage of Schools exhibiting a mixed attendance of Roman Catholic and Protestant Pupils, for each year from 1867 to 1876, is as follows:— Schools with mixed Religious attendance.

	1867.	1868.	1869.	1870.	1871.	1872.	1873.	1874.	1875.	1876.
Ulster, . .	83·9	83·2	82·5	82·6	80·1	80·6	79·1	78·7	77·9	76·9
Munster, .	40·5	40·1	40·3	40·5	39·5	40·3	41·5	41·4	39·2	39·
Leinster, .	48·0	48·5	46·9	46·7	46·6	48·0	49·9	51·4	50·0	51·7
Connaught,	50·5	48·9	47·6	48·6	45·8	47·8	47·9	48·1	44·8	47·7
Total, .	59·8	59·3	58·6	58·8	57·1	58·1	58·4	58·6	57·1	57·4

The numbers in this table for the year 1876 refer to the 7,168 schools from which returns were received.

16. The number of District and Minor Model Schools in operation at the end of the year was 26—this number is exclusive of the Model Schools in the Metropolitan District. The Results Examinations fully show that these schools continue to maintain their high character. Model Schools.

17. The number of pupils on the rolls of the Model Schools on the last day of the month immediately preceding the Results' Examinations, and who actually attended school on any of the fourteen days immediately before that date was 10,154, and the average daily attendance for the year was 8,315.*

The per-centage of average attendance of pupils in Model Schools, throughout the year, to the number on the rolls, who attended on any of the last fourteen days of the month preceding the annual examinations, is 81·9.

* The total number of pupils on the rolls of the Metropolitan, District and Minor Model Schools for the year ended the 31st of December, 1876, *and who actually attended*, was 16,029.

RETURN of the RELIGIOUS DENOMINATIONS of the PUPILS on the ROLLS who made any attendance at the DISTRICT and MINOR MODEL SCHOOLS between 1st January and 31st December, 1876; the NUMBER of PUPILS who attended once or oftener within the last fourteen days of Results Year; and also the AVERAGE ATTENDANCE.

COUNTY.	Name of School.	Religious Denominations.					Attendance within last 14 days of Results year.	Average Daily Attendance.
		R.C.	E.C.	Pres.	Other Persuasions.	Total.		
Dublin,	Metropolitan:							
,,	Central Model,	1,654	1,059	251	133	3,097	1,745	1,388
,,	West Dublin,	594	82	17	9	702	356	306
,,	Inchicore,	343	158	8	2	511	327	265
Kildare,	Athy,	4	102	64	7	177	128	95
Cavan,	Bailieborough,	316	115	97	–	528	333	258
Antrim,	Ballymena,	9	78	273	40	400	257	205
Antrim,	Belfast,	51	652	1,350	224	2,287	1,347	1,189
Tipperary,	Clonmel,	233	88	14	8	343	197	156
Londonderry,	Coleraine,	12	60	214	22	308	206	171
Cork,	Cork,	226	389	34	70	719	462	369
Cork,	Dunmanway,	477	25	–	10	512	370	272
Wexford,	Enniscorthy,	5	87	21	6	119	80	66
Fermanagh,	Enniskillen,	18	229	33	59	339	259	201
Galway,	Galway,	41	86	62	31	220	152	105
Kilkenny,	Kilkenny,	9	207	25	12	253	152	142
Limerick,	Limerick,	88	167	36	58	349	218	183
Londonderry,	Londonderry,	10	150	282	48	490	347	274
Armagh,	Newry,	50	209	222	49	530	312	264
Down,	Newtownards,	5	50	433	68	556	388	333
Sligo,	Sligo,	9	130	74	99	312	226	191
Meath,	Trim,	189	62	–	4	255	168	131
Waterford,	Waterford,	101	134	34	38	307	194	163
Antrim,	Ballymoney,	22	46	309	6	383	256	239
Antrim,	Carrickfergus,	3	90	239	67	399	298	251
Armagh,	Lurgan,	28	277	157	59	521	392	331
Monaghan,	Monaghan,	11	206	166	12	395	283	217
Tyrone,	N.-T.-Stewart,	–	90	145	4	239	157	133
Tyrone,	Omagh,	7	272	182	52	513	364	279
King's,	Parsonstown,	84	139	13	29	265	180	138
	Total,	4,599	5,449	4,755	1,226	16,029	10,154	8,315

The numbers paying school fees at the following rates in the above-named Model Schools on the 31st of March, 1877, were:—

At 1*s.* 1*d.* per quarter,	2,314 pupils.
,, 2*s.* 6*d.*	3,494 ,,
,, 5*s.* 0*d.*	3,061 ,,
,, 10*s.* 0*d.*	883 ,,
,, 20*s.* 0*d.*	60 ,,
	9,812
(There were also pupils admitted free,	161)

The amount apportioned to the Teachers of Model Schools in school fees during the year ended 31st March, 1877, was £5,059 6*s.* 11*d.* £2,317 7*s.* 9*d.*, the remainder of the school fees, will be paid into Her Majesty's Exchequer as an extra receipt.

Workhouse Schools.

18. The number of Workhouse Schools in connexion with us on the 31st December, 1876, and included in the number of Operation Schools, was 158. Of these schools 41 are in Ulster, 49 in Munster, 39 in Leinster, and 29 in Connaught.

There are now only 5 Workhouse Schools in Ireland not in connexion with the Board.

These schools were examined on the same system as the Ordinary Schools, and extracts from the reports of our Inspectors were communicated to the Local Government Board, for the information of the different Boards of Guardians. The salaries of the Teachers are determined by the Poor Law authorities, and paid from the Consolidated Fund; but the Poor Law Guardians have power, under the Teachers Act, to award from the rates the amount of results fees payable on the Inspectors' reports.

The total number of pupils appearing on the rolls of 157 of these Workhouse Schools which were in operation during the year ending 31st December, 1876, was 12,790, and the average daily attendance 6,904.

Training departments.

19. The establishments in which the Teachers attending at our Training Institution are boarded and lodged continue to be efficiently conducted. The inmates have been distinguished, as heretofore, for the general correctness of their conduct, for order and discipline, for the exercise of kindly feeling towards each other, and for the careful observance of their religious duties.

Number trained.

As stated in our Report for 1875, there are two classes of students in our Training Establishment—one for a course of five months, which is confined exclusively to principal teachers in charge of National Schools; and one for a course of ten months, to which principals, assistants, and candidate teachers are admissible.

Of both classes we trained 215, of whom 97 were males and 118 females. The numbers, according to religious denominations, were—Roman Catholics, 95; E.C., 56; Presbyterians, 53; Others, 11.

Number of Teachers.

20. We had in our service on the 31st March, 1877, 7,072 Principal Teachers and 3,205 Assistants, making, in the whole, 10,277, of whom 3,459 were trained in our Normal Establishment. We also had in our service, at the same date, 307 Workmistresses and 127 Junior Literary Assistants.

The Conductors of Convent Schools paid by capitation are not included in this return.

[TABLE.

The number of teachers in the several classes was as follows:—

Class.	Principals.		Assistants.		Total.	Junior Assistants.	Workmistresses and Industrial Teachers.
	Males.	Females.	Males.	Females.			
1^1 . .	122	96	10	15	938	.	.
1^2 . .	380	258	14	43		.	.
2^1 . .	1,100	673	45	179	2,950	.	.
2^2 . .	407	321	52	173		.	.
3^1 . .	1,674	831	296	1,201	6,389	.	.
3^2 . .	728	482	325	852		.	.
Total, .	4,411	2,661	742	2,463	10,277	127	307
	7,072		3,205				

21. Results fees under the ordinary regulations were payable only to the teachers—

(*a*) Of schools in contributory Unions (under the Act 38 & 39 Vict., cap. 96) in the proportion of two-thirds from the Imperial grant to one-third contributed from the rates;

(*b*) Of schools in non-contributory Unions of one-third only.

The number of Poor Law Unions contributing under the Act 38 & 39 Vict., cap. 96, during the year was 69,* and the amount raised from the rates in aid of the incomes of the teachers in these Unions was £30,499 19*s.* 6*d.*

This contribution from the Unions involved a payment of double that sum from the Parliamentary Grant, or a total of £91,499 18*s.* 6*d.* in results to the teachers of the contributory Unions.

But with a view of relieving the condition of the teachers of schools in non-contributory Unions, by enabling them to participate in the contingent results fees—so far as it might be possible to do so without departing from the principle of requiring local contributions as the condition on which the second moiety of the results fees from the Imperial grant could be paid—the Government authorized the Board, as an exceptional and temporary measure, to pay the second moiety to the teachers, in all cases where the local contributions amounted to a sum equalling

(*a*) At least 3*s.* 4*d.* per child, per annum, of the average attendance of the school, and also equalling

(*b*) At least half the amount of the fees which might have been granted under the Act to the teachers of the same school had it been situated within a contributory Union.

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* The Union of Cahirciveen was also contributory, but not having paid its contribution within the financial year, is not included.

The result of this temporary arrangement is—

(1) That in 2,698 of the 3,272 schools in non-contributory Unions the conditions entitling the teachers to contingent results fees were fulfilled.

(2) That the amount of contingent results fees, thus exceptionally paid to the teachers, was £22,357 13*s.* 8*d.*

22. The advantage of this temporary proposal to the teachers is not to be estimated only by the amount £22,357 13*s.* 8*d.* directly obtained from the Imperial Exchequer. Its influence in stimulating local effort in support of the schools is manifested by the fact that in the schools of those non-contributory Unions the local subscriptions increased from £7,582 19*s.* 9*d.*, in 1875, to £12,486 13*s.* 10*d.* in 1876; and the school pence of the pupils from £23,978 7*s.* 9*d.*, in 1875, to £34,984 9*s.* 10*d.* in 1876, or a total increase in local aid of £15,909 16*s.* 2*d.*

Total amount of salaries, gratuities, &c., paid in 1876.

23. The total amount of salaries, premiums, gratuities, and results' fees paid by us, including the amount from rates, in the twelve months ended the 31st March, 1877, to the Principal Teachers, Assistants, Monitors, and Workmistresses in National Schools—including the Central and other Model Schools, and the payments to Organizing Teachers—was £535,882 11*s.* 2*d.* This sum includes the £5,059 6*s.* 1*d.* school fees, apportioned to Teachers in Model Schools.

24. Of the unconditional results' fees, £56,156 6*s.* 1*d.* was paid within the financial year, and of the contingent results' fees £52,183 6*s.* 11*d.*, making the total results paid from the Imperial Exchequer £108,339 13*s.*, to which, as results' payments from the rates of contributory Unions, must be added £30,499 19*s.* 6*d.*, or a total of £138,839 12*s.* 6*d.* of results' fees paid to the Teachers.

Local emoluments of Teachers.

25. The following table shows, in counties and provinces, the amount of local emoluments received in aid of salaries of Teachers of 6,992 National Schools (excluding Workhouse Schools, Prison Schools, Lunatic Asylum Schools, Closed Schools, and schools from which no returns were received), during the year 1876, with the average for each school, and for each pupil in average daily attendance.

[TABLE.

TABLE.

PROVINCES AND COUNTIES.	Payments by Pupils.	Subscriptions, &c., &c.	Total.	No. of Schools.	Average No. of Pupils.	Average per School.	Average per Pupil of School Pence.	Average per Pupil from Local Subscriptions.	Average per Pupil of Total Amount locally subscribed.
	£ s. d.	£ s. d.	£ s. d.			£ s. d.	s. d.	s. d.	s. d.
ULSTER:									
Antrim, .	9,818 18 1	1,470 14 9	11,289 12 10	524	35,943	21 10 10¾	5 5½	0 10	6 3½
Armagh, .	2,091 11 7	1,447 12 2	3,539 3 9	222	12,952	15 18 10	3 2¾	2 2¾	5 5½
Cavan, . .	1,112 9 5	483 17 8	1,596 7 1	252	11,201	6 6 8¾	1 11¾	0 10½	2 10¼
Donegal, .	1,613 15 4	1,331 6 3	2,945 1 7	359	15,029	8 4 0¾	2 1¾	1 1¾	3 3
Down, . .	5,769 17 2	1,721 0 11	7,490 18 1	407	23,301	18 8 1½	4 10	1 5½	6 3½
Fermanagh, .	1,012 2 10	644 0 0	1,656 2 10	146	6,540	11 6 10½	3 1	1 11¾	5 0¾
Londonderry,	2,296 16 9	2,718 10 6	5,015 7 3	254	12,561	19 14 10¾	3 7¾	4 4	7 11¾
Monaghan, .	1,308 14 8	692 16 3	2,001 10 11	169	8,671	11 16 10¾	3 0¾	1 7¾	4 7½
Tyrone, . .	2,115 2 4	1,197 10 11	3,312 13 3	341	15,036	9 14 3½	2 9¾	1 7	4 4¾
Total, .	27,139 8 2	11,707 9 5	38,846 17 7	2,674	141,739	14 10 6½	3 9¾	1 8	5 5¾
MUNSTER:									
Clare, . .	2,991 13 6	316 13 8	3,308 7 2	207	13,162	15 19 7¾	4 6¼	0 6	5 0½
Cork, . .	9,636 9 7	2,127 5 8	11,763 15 3	639	46,220	18 8 2¼	4 2	0 11	5 1
Kerry, . .	3,909 4 9	1,311 19 6	5,221 4 3	293	21,748	17 16 4¾	3 7	1 2¼	4 9½
Limerick, .	4,672 9 5	1,227 5 0	5,899 14 5	230	17,153	25 13 0¼	5 5¼	1 5¾	6 10½
Tipperary, .	4,359 17 11	906 12 5	5,266 10 4	282	17,525	18 13 6	4 11¾	1 0¾	6 0
Waterford, .	1,608 19 6	494 9 7	2,103 9 1	118	6,859	17 16 7	4 8¾	1 5¾	6 1¾
Total, .	27,178 14 8	6,384 5 10	33,563 0 6	1,769	122,667	18 19 5½	4 5	1 0	5 5
LEINSTER:									
Carlow, .	523 10 1	394 15 11	918 6 0	67	3,687	13 14 1¾	2 10	2 1½	4 11½
Dublin, . .	4,450 4 10	2,051 11 1	6,501 15 11	219	19,297	29 13 9¾	4 7¼	2 1½	6 8¾
Kildare, .	1,108 10 4	378 12 7	1,487 2 11	94	5,149	15 16 4¾	4 3¾	1 5½	5 9¼
Kilkenny, .	1,681 13 10	601 7 11	2,283 1 9	168	9,251	13 11 9¼	3 7¼	1 4	4 11¼
King's, . .	1,119 0 11	548 12 1	1,667 13 0	104	5,574	16 0 8¼	4 0	1 11¾	5 11¾
Longford, .	500 17 4	346 2 1	846 19 5	97	4,606	8 14 3¾	2 2	1 6	3 8
Louth, . .	690 0 8	489 10 10	1,179 11 6	86	4,983	13 14 3¾	2 9¼	1 11¼	4 8¾
Meath, . .	1,224 1 10	791 17 4	2,015 19 2	168	7,746	11 19 11¼	3 1¾	2 0¾	5 2¼
Queen's, .	736 4 1	627 17 5	1,364 1 6	95	5,110	14 7 2	2 10½	2 5¾	5 4
Westmeath, .	946 16 0	415 18 6	1,362 14 6	126	5,973	10 16 3¾	3 2	1 4¾	4 6¾
Wexford, .	1,218 7 4	496 12 0	1,714 19 4	142	7,196	12 1 6¼	3 4½	1 4½	4 9
Wicklow, .	1,147 9 10	594 13 3	1,742 3 1	92	5,047	18 18 8¾	4 6½	2 4¾	6 10¾
Total, .	15,346 17 1	7,737 11 0	23,084 8 1	1,458	83,619	15 16 7¾	3 8	1 10¾	5 6¼
CONNAUGHT:									
Galway, .	2,413 18 0	1,135 13 7	3,549 11 7	264	14,878	13 8 10¾	3 2¾	1 6¾	4 9¼
Leitrim, .	1,100 18 10	458 6 2	1,559 5 0	190	9,349	8 4 1½	2 4¼	0 11¾	3 4
Mayo, . .	2,317 10 5	924 13 11	3,242 4 4	279	16,737	11 12 5	2 9	1 1¾	3 10½
Roscommon, .	1,752 12 10	450 4 5	2,202 17 3	211	11,372	10 8 9½	2 11½	0 9	3 8½
Sligo, . .	1,184 15 11	452 12 2	1,637 8 1	147	8,821	11 2 9¼	2 8¾	1 1½	3 9¾
Total, .	8,769 16 0	3,421 10 3	12,191 6 3	1,091	61,657	11 3 5¾	2 10	1 1½	3 11½
Grand Total,	78,434 15 11	29,250 16 6	107,685 12 5 *	6,992	409,682	15 8 0½	3 9¾	1 5½	5 3

This return shows an increase as compared with the previous year of £17,723 8*s.* 9*d.* in the school fees of the pupils, and of £5,101 18*s.* 11*d.* in the local subscriptions, &c.

Total income of Teachers.

26. The total income of the teaching staff from all sources, for the year, appears to have been £638,508 16*s.* 8*d.*—viz., £530,823 4*s.* 3*d.* from Board and rates, and £107,685 12*s.* 5*d.* for payments by pupils (including portion of model school fees),

* This amount includes £6,482 13*s.* 3*d.* the value, estimated by the managers, of free residences and gardens for the teachers.

and subscriptions, &c.; 27·6 per cent. of this sum was locally provided, and 72·4 per cent. was derived from the funds placed at our disposal by the State.

Residences for Teachers.

27. The Act for providing residences for the teachers of non-vested National Schools, passed by the Legislature in August, 1875, has not so far met with that reception that we expected. The number of applications formally made for loans was 64, and the number favourably dealt with, 47. Grants under the minute of the Lords of Her Majesty's Treasury to build residences in connexion with vested Schools were made in 15 cases only. There were 4 applications under the first and 10 under the second head not disposed of on 31st March.

New Teachers.

28. During the year 1876-7, 688 teachers left the service, either for the present or permanently, and there were 817 persons newly appointed as Teachers in National Schools. We have received returns relative to the antecedents of 323 of the New Principal Teachers, viz.:—

Assistants promoted,			107
Pupil Teachers, Paid Monitors, Pupils only,	From Model Schools,	35, 10, 3	48
Paid Monitors, Pupils only,	From Ordinary Schools,	74, 69	143
Paid Monitors, Pupils only,	From Convent Schools,	22, 3	25
			323

Also returns relative to the antecedents of 431 New Assistant Teachers, viz.:—

Pupil Teachers, Paid Monitors, Pupils only,	From Model Schools,	28, 11, 11	50
Paid Monitors, Pupils only,	From Ordinary Schools,	239, 112	351
Paid Monitors, Pupils only,	From Convent Schools,	26, 4	30
			431

Teachers who have been withdrawn from the service.

29. Of the 688 teachers who left the service we have ascertained the cause of withdrawal in 422 cases.

Causes of withdrawal.	Trained.	Untrained.	Total.
Resigned to enter the Civil Service,	3	33	36
„ for Domestic Duties (marriage, &c.),	28	80	108
„ „ Commercial Pursuits, &c.,	1	4	5
„ „ Collegiate or Religious vocation,	3	13	16
„ on account of age, ill-health, &c.,	11	14	25
„ on receiving Retiring Gratuities,	37	16	53
„ to teach in schools not in connexion with the Board,	7	7	14
„ Emigrated,	8	17	25
Dismissed,	18	43	61
Died,	24	52	76
Lunatic Asylums,	1	2	3
Totals,	141	281	422

Paid Monitors.

30. The following Table shows the number of Monitors, Male and Female, on the 31st March, 1877, of each grade in each year of service:—

Year of Service.	First Class.		Second Class.		Third Class.	
	Males.	Females.	Males.	Females.	Males.	Females.
1st year,	55	257	551	986	112	143
2nd „	33	165	251	434	38	51
3rd „	13	101	322	613	82	73
Total,	101	523	1,124	2,033	232	267
	624		3,157		499	
	4,280					

For some months towards the end of the year there was a suspension of the appointment of paid monitors during a correspondence on the subject between us and the Lords of Her Majesty's Treasury. Many vacancies were not filled up; and the number of paid monitors in the service became smaller than in 1875; but a large number was appointed from the 1st April, 1877. These appointments will in future be made quarterly instead of monthly.

In addition to the Paid Monitors, there was a staff of 178 Pupil-teachers in our Model Schools.

The following Table shows the Classification of 762,756 of the Pupils on the Rolls for the *last quarter* of the year 1876:—

Provinces and Counties.	Infants.	Class I.	Class II.	Class III.	Class IV.	Class V[1].	Class V[2].	Class VI.	Total.
Ulster.									
Antrim,	16,066	12,537	11,528	9,405	6,643	3,894	1,630	1,157	62,860
Armagh,	5,960	5,505	4,264	3,438	2,517	1,440	676	622	24,422
Cavan,	4,644	5,169	4,262	3,516	2,514	1,572	558	427	22,662
Donegal,	7,758	8,704	5,683	4,527	3,160	1,743	741	552	32,868
Down,	10,607	8,149	6,895	5,506	4,312	2,505	1,227	870	40,071
Fermanagh,	2,739	2,994	2,359	2,041	1,470	870	346	259	13,078
Londonderry,	5,651	4,801	3,979	3,275	2,782	1,661	812	656	23,617
Monaghan,	3,964	3,699	2,890	2,679	1,978	1,124	487	417	17,238
Tyrone,	6,750	7,172	5,518	4,486	3,473	1,892	855	617	30,763
Total,	64,139	58,730	47,378	38,873	28,849	16,701	7,332	5,577	267,579
Munster.									
Clare,	4,722	4,951	4,251	3,577	3,215	1,910	882	881	24,389
Cork,	17,013	15,790	12,771	11,634	9,412	5,661	2,925	2,168	77,374
Kerry,	7,509	7,939	6,147	5,666	4,451	2,944	1,452	1,140	37,248
Limerick,	5,802	5,467	4,693	4,080	3,428	2,493	1,396	1,477	28,836
Tipperary,	6,795	6,232	5,279	4,555	3,713	2,335	1,033	881	30,823
Waterford,	2,852	2,630	1,956	1,620	1,340	733	392	267	11,790
Total,	44,693	43,009	35,097	31,132	25,559	16,076	8,080	6,814	210,460
Leinster.									
Carlow,	1,535	1,512	1,155	934	749	461	169	128	6,643
Dublin,	11,390	7,279	5,389	4,092	2,772	1,583	753	712	33,970
Kildare,	2,205	2,458	1,819	1,395	917	543	157	84	9,578
Kilkenny,	3,746	3,389	2,666	2,366	1,788	1,163	514	373	16,005
King's,	2,633	2,344	1,920	1,424	1,070	588	210	206	10,395
Longford,	2,191	2,514	1,753	1,495	1,132	615	275	171	10,146
Louth,	2,154	2,258	1,752	1,279	925	488	244	127	9,227
Meath,	3,188	2,908	2,508	1,911	1,662	983	479	277	13,916
Queen's,	2,232	2,335	1,777	1,515	1,124	646	248	147	10,024
Westmeath,	2,528	2,374	1,939	1,698	1,340	742	395	198	11,214
Wexford,	3,199	3,376	2,266	1,840	1,238	759	238	152	13,068
Wicklow,	1,821	2,385	1,639	1,384	1,009	518	209	110	9,075
Total,	38,822	35,132	26,583	21,333	15,726	9,089	3,891	2,685	153,261
Connaught.									
Galway,	5,800	9,544	6,423	4,578	3,150	1,489	547	406	31,937
Leitrim,	4,037	4,256	3,623	3,035	2,233	1,154	439	281	19,058
Mayo,	7,771	10,165	7,331	5,414	3,766	1,817	674	453	37,391
Roscommon,	4,965	6,238	4,753	3,784	2,970	1,488	645	589	25,432
Sligo,	3,606	3,793	3,057	2,724	2,209	1,277	545	427	17,638
Total,	26,179	33,996	25,187	19,535	14,328	7,225	2,850	2,156	131,456
Ulster,	64,139	58,730	47,378	38,873	28,849	16,701	7,332	5,577	267,579
Munster,	44,693	43,009	35,097	31,132	25,559	16,076	8,080	6,814	210,460
Leinster,	38,822	35,132	26,583	21,333	15,726	9,089	3,891	2,685	153,261
Connaught,	26,179	33,996	25,187	19,535	14,328	7,225	2,850	2,156	131,456
Grand Total,	173,833	170,867	134,245	110,873	84,462	49,091	22,153	17,232	762,756
Per-centage,	22·8	22·5	17·6	14·6	11·1	6·5	2·6	2·3	
		54·7			22·5				

In 1875 we issued to managers and teachers a circular informing them that from the 1st of March, 1877, each pupil, in order to

qualify for presentation at the results inspections, would be required to make 100 attendances of four hours a day, instead of 90 attendances as heretofore.

The following results have been ascertained through individual examination of the pupils of National Schools by the Inspectors at their annual inspection within the year:—

I.—(*a.*) The total number of distinct schools, ordinary and model, examined for Results within the twelve months ended 31st March, 1877, by the Inspectors, and for which we have been able to tabulate the following particulars, was 6,871.

This number does not include Poor Law Union, Gaol, Lunatic Asylum, Evening, or Industrial Schools.

(*b.*) Number qualified by attendances for presentation at examination:—

Males, 219,280; Females, 218,561; Total, 437,841.

(*c.*) Number who, having made 90 attendances or over within the Results year, were present and examined on day of inspection for Results Fees:—

Males, 205,211; Females, 201,135; Total, 406,346.

(*d.*) The average daily attendance for twelve months ending last day of month immediately preceding the Results examinations in these 6,871 schools was—

Males, 180,576; Females, 190,721; Total, 371,297.

The centesimal proportion of number examined to the average daily attendance was 109·4.

(*e.*) The following figures will show the numbers of pupils examined, and who, having passed in reading, writing, and arithmetic, were promoted at the Results examinations:—

Grades.	Number Examined.	Number Promoted.	Percentage Promoted.
Infants,	72,782	29,191*	40·1*
First Class,	88,266	55,597	62·9
Second Class,	78,313	53,320	68·1
Third Class,	65,155	40,639	62·3
Fourth Class,	50,314	24,516	48·7
Fifth Class (1st division),	28,861	13,296	46·1
Fifth Class (2nd stage),	14,547	8,243	56·6
Sixth Class,	8,108	4,147	51·0
	406,346	228,949	56·3

(*f.*) Percentage of pupils examined in each class to the total number examined in all the classes:—

Percentage in Infants' grade,	18·0	Class V. (1st stage),	7·1
Class I.,	21·8	Class V. (2nd stage),	3·5
Class II.,	19·3	Class VI.,	2·0
Class III.,	16·0		
Class IV.,	12·3		100·0

Results.

31. In 1874 a regulation was introduced which substituted the passing in reading, writing, *and* arithmetic, for the passing in reading and any one other programme subject as the condition of

* Infants are not necessarily promoted into First class, after satisfactory answering, until they reach seven years of age, which accounts for the smallness of the above numbers.

promotion of pupils of first and higher classes. Under the old regulation it was found that pupils were advanced too rapidly to the higher classes.

The per-centage of passes to the number of pupils examined in 1876-7 was:—

Reading,	86·1	Grammar,	52·2	Book-keeping,	47·2
Spelling,	75·6	Geography,	51·3	Singing,	76·7
Writing,	88·1	Agriculture,	38·8	Drawing,	69·9
Arithmetic,	67·1	Needlework,	92·9		

General Abstract of Answering.

(*h.*) Of the total number of infants (72,782) who had attended 90 days within the year and were examined by the Inspectors, passes were assigned to 63,978.*

Percentage of infants who gained passes to total number examined, 87·9

(*i.*)

Classes.	No. of Pupils examined for Results Fees in subject.	No. of Passes assigned for answering in subject.	Per-centage of Passes to No. of *Pupils examined* in Class.	Classes.	No. of Pupils examined for Results Fees in subject.	No. of Passes assigned for answering in subject.	Per-centage of Passes to No. of *Pupils examined* in Class.
Reading.				**Grammar.**			
Class I.,	88,266	74,612	84·5	Class III.,	65,155	33,392	51·2
,, II.,	78,313	66,410	84·8	,, IV.,	50,314	23,679	47·0
,, III.,	65,155	56,089	86·0	,, V^1.,	28,861	15,330	53·2
,, IV.,	50,314	43,492	86·4	,, V^2.,	14,547	9,508	65·3
,, V^1.,	28,861	26,314	91·1	,, VI.,	8,108	5,230	64·5
,, V^2.,	14,547	13,599	93·4				
,, VI.,	8,108	7,157	88·2	Total,	166,985	87,189	52·2
Total,	333,564	287,673	86·2	**Geography.**			
Spelling.				Class III.,	65,155	34,806	53·4
Class I.	88,266	69,505	78·7	,, IV.,	50,314	24,284	48·2
,, II.,	78,313	57,225	73·0	,, V^1.,	28,861	14,239	49·3
,, III.,	65,155	47,011	72·1	,, V^2.,	14,547	8,055	55·3
,, IV.,	50,314	35,493	70·5	,, VI.,	8,108	4,761	58·7
,, V^1.,	28,861	23,330	80·8				
,, V^2.,	14,547	12,650	86·9	Total,	166,985	86,145	51·3
,, VI.,	8,108	7,112	87·7	**Agriculture.**			
Total,	333,564	252,326	75·6	Class IV.,	11,376	3,535	31·0
Writing.				,, V^1.,	7,691	2,869	37·3
Class I.,	88,266	70,729	80·1	,, V^2.,	4,495	2,333	51·9
,, II.,	78,313	69,371	88·5	,, VI.,	2,412	1,335	55·3
,, III.,	65,155	60,083	92·2	Total,	25,974	10,072	38·8
,, IV.,	50,314	45,774	90·9	**Book-keeping.**			
,, V^1.,	28,861	27,105	93·9	Class IV.,	3,563	1,430	40·1
,, V^2.,	14,547	13,917	95·6	,, V^1.,	3,225	1,584	49·1
,, VI.,	8,108	6,970	85·9	,, V^2.,	1,558	833	53·4
Total,	333,564	293,949	88·1	,, VI.,	910	524	57·5
Arithmetic.				Total,	9,256	4,371	47·2
Class I.,	88,266	62,159	70·4	**Needlework.**			
,, II.,	78,313	61,806	78·9	Class II.,	34,662	32,208	92·9
,, III.,	65,155	44,829	68·8	,, III.,	30,051	27,804	92·5
,, IV.,	50,314	27,846	55·3	,, IV.,	23,259	21,505	92·4
,, V^1.,	28,861	14,191	49·1	,, V$_1$.,	13,239	12,503	94·4
,, V^2.,	14,547	8,593	59·0	,, V$_2$.,	6,278	5,916	94·2
,, VI.,	8,108	4,481	55·2	,, VI.,	3,311	3,085	93·1
Total,	333,564	223,905	67·1	Total,	110,800	103,021	92·9

* The proficiency of an infant is marked by a *single* pass.

(*j.*) Extra Subjects.

In our Report of 1874 we stated that since the year 1855 we have encouraged instruction as extra branches in singing, drawing, and the mathematical and physical sciences, by a system of gratuities for satisfactory answering in these subjects ; and recently we have added classics and French, and also for girls the use of the sewing machine and the higher branches of needlework.

The numbers examined in these branches for results fees and the answering, are as follows :—

Subjects.	2nd Class.		3rd Class.		4th Class.	
	No. Examined.	No. of Passes.	No. Examined.	No. of Passes.	No. Examined.	No. of Passes.
Singing,	12,568	9,444	12,075	9,291	9,737	7,269
Drawing,	–	–	5,277	3,218	5,802	3,873

Subjects.	5th Class.		6th Class.		Total.	
	No. Examined.	No. of Passes.	No. Examined.	No. of Passes.	No. Examined.	No. of Passes.
Singing—*continued*,	9,056	7,366	2,034	1,511	11,090	8,877
Drawing—*continued*,	7,055	5,328	1,740	1,466	8,795	6,794
Geometry and Mensuration,	2,651	1,396	1,915	1,200	4,566	2,596
Algebra,	3,237	1,945	1,746	1,250	4,983	3,195
Trigonometry,	5	3	44	29	49	32
Navigation,	–	–	2	1	2	1
Mechanics,	66	40	96	68	162	108
Hydrostatics and Pneumatics,	36	27	76	61	112	88
Light and Sound,	148	105	41	32	189	137
Magnetism and Electricity,	380	315	75	68	455	383
Animal Physiology,	26	11	44	35	70	46
Physical Geography,	437	245	347	219	784	464
Geology,	6	3	33	21	39	24
Botany,	339	202	174	123	513	325
Latin,	148	109	184	152	332	261
Greek,	75	59	65	56	140	115
French,	502	290	365	297	867	587
Sewing Machine,	1,211	993	410	313	1,621	1,306
Cutting Out,	25	22	51	43	76	65
Cookery,	19	8	27	21	46	29
Management of Poultry,	66	40	35	32	101	72
Heat and Steam Engine,	44	27	16	7	60	34
Light and Heat,	–	–	3	1	3	1
Domestic Economy,	7	5	1	1	8	6
Manual of Needlework,	4	4	–	–	4	4
Chemistry,	4	–	56	45	60	45
Acoustics,	18	15	5	5	23	20
Zoology,	–	–	5	4	5	4
Total,	25,565	18,558	9,590	7,061	35,155	25,619

School Farms.

32. The total number of School Farms in connexion with the Board on the 31st December, 1876, was 134, of which 7 were School Farms of the First Class, under our exclusive management. All the School Farms were examined during the past year. The Ordinary Agricultural Schools under local management were also examined, and special results fees for agriculture were granted upon the reports of the Agricultural Inspectors. The total number of pupils examined in agriculture in this class of schools

was 1,841, of whom 1,306 passed in the agricultural programme; and the amount paid as special results fees in the subject was £457 10*s.* 6*d.*

We had also 36 schools having School Gardens attached, for the management of which, and for the agricultural knowledge displayed by the pupils, we granted special agricultural fees, upon the reports of the District Inspectors. The number of pupils examined in the School Gardens last year was 232, of whom 164 passed.

As set forth in table at page 21, 25,974 pupils were examined in agriculture by District Inspectors in the Ordinary National Schools at the Results' examinations, of whom 10,072 passed. The total number of pupils examined in agriculture during the year 1876–7 (including the pupils of Ordinary Agricultural Schools and School Gardens, referred to above), was 28,047, of whom 11,542 gained passes for their proficiency in that branch.

Sale Stock Requisites.

33. The amount received for books, school requisites, and apparatus, sold to National Schools in the year 1876–7, was £25,914 10*s.* 7*d.* The number of orders was 16,474; and the average amount of each order, £1 11*s.* 5½*d.*

Free Stock Requisites.

34. The value of the requisites and apparatus granted as Free Stock to National Schools in 1876–7, was £1,501 11*s.* 5*d.* The number of grants was 395.

Finance.

35. We also publish a full statement of our receipts and expenditure for the twelve months ending the 31st March, 1877.

36. We submit this, as our Report for the past year, to your Grace, and in testimony thereof have caused our Corporate Seal to be hereunto affixed, this Fifteenth day of May, One Thousand Eight Hundred and Seventy-seven.

SEAL.

(Signed)

WM. HOMAN NEWELL,
JOHN E. SHERIDAN, } *Secretaries.*

ACCOUNTS

OF THE

PARLIAMENTARY GRANT, AND CASH RECEIPTS AND PAYMENTS

BY

THE COMMISSIONERS

OF

NATIONAL EDUCATION, IRELAND,

FROM

1ST APRIL, 1876, TO THE 31ST MARCH, 1877.

Accounts of the Parliamentary Grant, and Cash Receipts and

Dr. from 1st April, 1876,

Sched.	CHARGE.	£	s.	d.
	Balance on the 1st April, 1876,	79,310	0	6
	Parliamentary Grant,	645,949	0	0
A. 1.	Office in Dublin: Salaries and Wages,	1	16	8
B 2.	Inspection: Travelling Allowances, &c.,	2	7	6
C 2.	Normal Establishment: Male Teachers' Training Department,	3	0	0
3.	Female ditto,	3	1	0
D 5.	District Model Schools,	6	5	7
E. 1.	National Schools, &c.: Principal and Assistant Teachers,	62	16	10
4.	Monitors,	8	13	4
	(For sundry Repayments in aid of above Sub-heads of the Vote.)			

Exchequer Extra Receipts: School Fees received from Pupils attending the following Model Schools. (The Salaries of Principal and Assistant Teachers of Model Schools are supplemented by a sum of £5,200 or thereabouts, being about four-fifths of the Fees received from Pupils attending these Schools. The balance of the Fees—about £2,300—is payable to H. M. Exchequer):—	£	s.	d.			
Central Model School, Co. Dublin,	1,464	17	11			
West Dublin Model School, Co. Dublin,	216	16	7			
Glasnevin Model Industrial School, Co. Dublin,	33	15	11			
Inchicore Model School, Co. Dublin,	125	16	10			
Athy Model School, Co. Kildare,	101	5	5			
Bailieborough Model School, Co. Cavan,	131	12	5			
Carried forward £	2,074	5	1	725,852	1	5

PAYMENTS by the COMMISSIONERS of NATIONAL EDUCATION, IRELAND, to 31st March, 1877. CR.

Sched.	DISCHARGE.	£ s. d.	£ s. d.
A.	OFFICE IN DUBLIN:		
1.	Salaries and Wages,	—	21,497 3 8
2.	Travelling Expenses,	—	309 11 5
3.	Legal Expenses,	—	239 5 1
4.	Police,	—	264 6 11
5.	Rent,	—	115 7 6
6.	Incidental Expenses,	—	253 14 2
B.	INSPECTION:		
1.	Salaries,	—	26,952 17 7
2.	Travelling and Personal Allowances, &c.,	—	9,376 3 6
C.	NORMAL ESTABLISHMENT:		
1.	Salaries, Professors, &c.,	—	1,777 15 5
2.	MALE TEACHERS' TRAINING DEPARTMENT:		
	Salaries, &c., Superintendents, &c., £177 17 8		
	Maintenance, &c., Teachers under Training, 2,189 15 11		
	General Expenditure, 288 6 6	—	2,656 0 1
3.	FEMALE TEACHERS' TRAINING DEPARTMENT:		
	Salaries, &c., Superintendents, &c., £194 10 0		
	Maintenance, &c., Teachers under Training, 2,074 0 0		
	General Expenditure, 217 1 3	—	2,485 11 8
4.	TRAINING DEPARTMENTS:		
	Miscellaneous Expenditure,	—	49 12 1
D.	MODEL SCHOOLS.		
1.	CENTRAL MODEL SCHOOL:		
	Salaries and Allowances—Teachers, Pupil-Teachers, and Monitors, £5,206 17 11		
	General Expenditure, 13 7 5	—	5,220 5 4
2.	WEST DUBLIN MODEL SCHOOL:		
	Salaries and Allowances—Teachers, Pupil-Teachers, and Monitors, £1,255 12 6		
	General Expenditure, 37 5 3	—	1,292 17 9
3.	GLASNEVIN MODEL INDUSTRIAL SCHOOL:		
	Salaries, &c., Teachers, £274 11 8		
	General Expenditure, Literary and Industrial, 12 16 0	—	287 7 8
4.	INCHICORE MODEL SCHOOL:		
	Salaries and Allowances—Teachers, Pupil-Teachers, and Monitors, &c., £619 3 10		
	General Expenditure, 6 17 0	—	626 0 10
5.	DISTRICT MODEL SCHOOLS.		
	ATHY DISTRICT MODEL SCHOOL:		
	Salaries and Allowances—Teachers, Pupil-Teachers, and Monitors, £626 17 8		
	General Expenditure, 18 1 6	644 19 2	
	BAILIEBOROUGH DISTRICT MODEL SCHOOL:		
	Salaries and Allowances—Teachers, Pupil-Teachers, and Monitors, £918 3 0		
	General Expenditure, 42 13 8	960 16 8	
	Carried forward, £	1,605 15 10	73,404 0 8

ACCOUNT of RECEIPTS

CHARGE.	£	s.	d.	£	s.	d.
Brought forward, . .	2,074	5	1	725,852	1	5
AMOUNT OF SCHOOL FEES—*continued.*						
BALLYMENA MODEL SCHOOL, CO. ANTRIM, . .	173	14	3			
BELFAST MODEL SCHOOL, CO. ANTRIM, ...	894	7	7			
CLONMEL MODEL SCHOOL, CO. TIPPERARY, . .	134	7	11			
COLERAINE MODEL SCHOOL, CO. LONDONDERRY, .	176	9	11			
CORK MODEL SCHOOL, CO. CORK, ...	562	2	7			
DUNMANWAY MODEL SCHOOL, CO. CORK, . . .	99	1	0			
ENNISCORTHY MODEL SCHOOL, CO. WEXFORD, . .	58	3	9			
ENNISKILLEN MODEL SCHOOL, CO. FERMANAGH, . .	228	5	9			
GALWAY MODEL SCHOOL, CO. GALWAY, . . .	103	18	4			
KILKENNY MODEL SCHOOL, CO. KILKENNY, . .	137	9	6			
LIMERICK MODEL SCHOOL, CO. LIMERICK, . .	201	1	5			
LONDONDERRY MODEL SCHOOL, CO. LONDONDERRY, .	271	17	2			
Carried forward, . £	5,115	4	3	725,852	1	5

and DISBURSEMENTS—*continued.*

Sched.	DISCHARGE.	£ s. d.	£ s. d.
	Brought forward, . .	1,605 15 10	73,404 0 8
D 5.	BALLYMENA DISTRICT MODEL SCHOOL:		
	Salaries and Allowances—Teachers, Pupil-Teachers, and Monitors, ... £864 17 0		
	General Expenditure, ... 53 1 9	917 18 9	
	BELFAST DISTRICT MODEL SCHOOL:		
	Salaries and Allowances—Teachers, Pupil-Teachers, and Monitors, . . . £4,128 0 1		
	General Expenditure, ... 379 18 7	4,507 18 8	
	CLONMEL DISTRICT MODEL SCHOOL:		
	Salaries and Allowances—Teachers, Pupil-Teachers, and Monitors, ... £778 8 8		
	General Expenditure, ... 51 6 9	829 15 5	
	COLERAINE DISTRICT MODEL SCHOOL:		
	Salaries and Allowances—Teachers, Pupil-Teachers, and Monitors, ... £915 9 5		
	General Expenditure, ... 29 14 0	945 3 5	
	CORK DISTRICT MODEL SCHOOL:		
	Salaries and Allowances—Teachers, Pupil-Teachers, and Monitors, . . . £1,655 6 3		
	General Expenditure, ... 191 17 4	1,847 3 9	
	DUNMANWAY DISTRICT MODEL SCHOOL:		
	Salaries and Allowances—Teachers, Pupil-Teachers, and Monitors, ... £888 14 6		
	General Expenditure, ... 46 9 3	935 3 9	
	ENNISCORTHY DISTRICT MODEL SCHOOL:		
	Salaries and Allowances—Teachers, Pupil-Teachers, and Monitors, ... £301 18 0		
	General Expenditure, ... 40 17 5	342 15 5	
	ENNISKILLEN DISTRICT MODEL SCHOOL:		
	Salaries and Allowances—Teachers, Pupil-Teachers, and Monitors, ... £944 17 3		
	General Expenditure, ... 161 11 2	1,106 8 5	
	GALWAY DISTRICT MODEL SCHOOL:		
	Salaries and Allowances—Teachers, Pupil-Teachers, and Monitors, ... £713 17 3		
	General Expenditure, ... 54 18 8	768 15 11	
	KILKENNY DISTRICT MODEL SCHOOL:		
	Salaries and Allowances—Teachers, Pupil-Teachers, and Monitors, ... £705 7 7		
	General Expenditure, ... 90 18 8	796 6 3	
	LIMERICK DISTRICT MODEL SCHOOL:		
	Salaries and Allowances—Teachers, Pupil-Teachers, and Monitors, ... £1,095 4 2		
	General Expenditure, ... 80 11 1	1,175 15 3	
	LONDONDERRY DISTRICT MODEL SCHOOL:		
	Salaries and Allowances—Teachers, Pupil-Teachers, and Monitors, ... £1,453 14 9		
	General Expenditure, ... 159 1 6	1,612 16 3	
	Carried forward, . . £	17,391 17 1	73,404 0 8

Account of Receipts

CHARGE.	£	s.	d.	£	s.	d.
Brought forward, . .	5,115	4	3	725,852	1	5
Amount of School Fees—*continued.*						
Newry Model School, Co. Down, ...	266	2	11			
Newtownards Model School, Co. Down, . .	221	13	10			
Sligo Model School, Co. Sligo, ...	227	0	2			
Trim Model School, Co. Meath, ...	82	15	11			
Waterford Model School, Co. Waterford, .	201	8	6			
Ballymoney Model School, Co. Antrim, . . .	167	2	3			
Carrickfergus Model School, Co. Antrim, . .	203	18	5			
Lurgan Model School, Co. Armagh, ...	211	15	8			
Monaghan Model School, Co. Monaghan, . .	195	18	5			
Newtownstewart Model School, Co. Tyrone,	91	14	2			
Omagh Model School, Co. Tyrone, . .	242	16	6			
Parsonstown Model School, King's County, .	149	3	8			
				7,376	14	8
Carried forward, £	—			733,228	16	1

and DISBURSEMENTS—*continued.*

Sched.	DISCHARGE.	£	s.	d.	£	s.	d.
	Brought forward, . .	17,391	17	1	73,404	0	8
D 5.	NEWRY DISTRICT MODEL SCHOOL:						
	Salaries and Allowances—Teachers, Pupil-Teachers, and Monitors, . . . £1,041 10 10						
	General Expenditure, ... 58 15 1						
		1,100	5	11			
	NEWTOWNARDS DISTRICT MODEL SCHOOL:						
	Salaries and Allowances—Teachers, Pupil-Teachers, and Monitors, . . . £1,398 18 10						
	General Expenditure, ... 91 1 2						
		1,490	0	0			
	SLIGO DISTRICT MODEL SCHOOL:						
	Salaries and Allowances—Teachers, Pupil-Teachers, and Monitors, . . . £958 2 11						
	General Expenditure, ... 91 11 1						
		1,049	14	0			
	TRIM DISTRICT MODEL SCHOOL:						
	Salaries and Allowances—Teachers, Pupil-Teachers, and Monitors, . . . £640 6 6						
	General Expenditure, ... 53 19 0						
		694	5	6			
	WATERFORD DISTRICT MODEL SCHOOL:						
	Salaries and Allowances—Teachers, Pupil-Teachers, and Monitors, . . . £697 1 1						
	General Expenditure, ... 80 0 5						
		777	1	6			
					22,503	4	0
D 6.	MINOR MODEL SCHOOLS.						
	BALLYMONEY MINOR MODEL SCHOOL:						
	Salaries and Allowances—Teachers, Pupil-Teachers, and Monitors, . . . £949 4 6						
	General Expenditure, ... 30 7 1						
		979	11	7			
	CARRICKFERGUS MINOR MODEL SCHOOL:						
	Salaries and Allowances—Teachers and Monitors, ... £862 17 3						
	General Expenditure, ... 56 10 3						
		919	7	6			
	LURGAN MINOR MODEL SCHOOL:						
	Salaries and Allowances—Teachers, Pupil-Teachers, and Monitors, . . . £1,124 6 4						
	General Expenditure, ... 81 8 7						
		1,205	14	11			
	MONAGHAN MINOR MODEL SCHOOL:						
	Salaries and Allowances—Teachers and Monitors, ... £705 1 7						
	General Expenditure, ... 49 9 2						
		754	10	9			
	NEWTOWNSTEWART MINOR MODEL SCHOOL:						
	Salaries and Allowances—Teachers, Pupil-Teachers, and Monitors, . . . £482 7 11						
	General Expenditure, ... 33 16 2						
		516	4	1			
	OMAGH MINOR MODEL SCHOOL:						
	Salaries and Allowances—Teachers, Pupil-Teachers, and Monitors, . . . £963 7 6						
	General Expenditure, ... 57 0 9						
		1,020	8	3			
	PARSONSTOWN MINOR MODEL SCHOOL:						
	Salaries and Allowances—Teachers, Pupil-Teachers, and Monitors, . . . £532 5 7						
	General Expenditure, ... 36 2 5						
		568	8	0			
					5,964	5	1
	Carried forward, . . £	—			101,871	9	9

ACCOUNT of RECEIPTS

Sched.	CHARGE.	£ s. d.	£ s. d.
	Brought forward, . .	—	733,228 16 1
F.	AGRICULTURAL ESTABLISHMENTS.		
	RECEIPTS FOR SALES OF FARM PRODUCE, &c., FROM FARMS UNDER THE MANAGEMENT OF THE BOARD:—		
3	ALBERT MODEL FARM AND GARDEN, GLASNEVIN, CO. DUBLIN, ...	2,911 12 3	
4	ATHY SCHOOL FARM, CO. KILDARE, ...	430 18 1	
	BALLYMONEY SCHOOL FARM, CO. ANTRIM, ...	320 11 0	
	BATH SCHOOL FARM, CO. MONAGHAN, ...	65 18 0	
	BELFAST (ULSTER) SCHOOL FARM, CO. ANTRIM, . .	71 8 1	
	DERRYCASTLE SCHOOL FARM, CO. TIPPERARY, . . .	45 11 2	
	Carried forward, . . £	3,845 18 7	733,228 16 1

and DISBURSEMENTS—*continued.*

Sched.	DISCHARGE.	£ s. d.	£ s. d.
	Brought forward, . .	—	101,871 9 9
D.	MODEL SCHOOLS:		
	Miscellaneous Expenditure, ...	—	60 0 0
7	Retiring Gratuities, ...	—	977 18 9
E.	NATIONAL SCHOOLS, &c.:		
1	Principal and Assistant Teachers' Salaries, £ Do. Do. Results Fees,	416,041 17 11	
2	Workmistresses, ...	3,013 5 9	
3	Good Service Salaries, ...	4,827 8 8	
4	Monitors, ...	33,613 4 9	
5	Training Monitors, &c., ...	6,084 13 4	
6	Travelling Expenses, Teachers and Monitors for Examination,	926 14 6	
7	Gratuities to Teachers of Workhouse Schools, . . .	181 10 0	
8	Organizing Teachers, ...	812 0 1	
9	Retiring Gratuities, ...	5,011 5 5	
10	Navigation Teachers, &c., ...	130 0 0	
11	National Schools—Incidental Expenditure, . . .	37 2 2	
			470,679 2 7
F.	AGRICULTURAL ESTABLISHMENTS:		
1	General Superintendence and Inspection, ...	—	929 4 7
2	ALBERT AGRICULTURAL TRAINING DEPARTMENT:		
	Salaries and Wages, ...	413 10 8	
	Maintenance of Agricultural Pupils, &c., ...	1,528 10 5	
	General Expenditure, ...	443 13 6	
			2,385 14 7
3	ALBERT MODEL FARM AND GARDEN, CO. DUBLIN:		
	Purchase of Live Stock, Seeds, Implements, and General Farm Expenses, &c., ...	—	3,679 3 6
4	AGRICULTURAL SCHOOLS.		
	ATHY MODEL AGRICULTURAL SCHOOL:		
	Salary, &c., of Agriculturist, and Maintenance of Resident Agricultural Pupils, &c., £122 16 9		
	Purchase of Live Stock, &c., and General Farm Expenses, ... 697 15 1	820 11 10	
	BALLYMONEY MODEL AGRICULTURAL SCHOOL:		
	Salary, &c., of Agriculturist, and Maintenance of Resident Agricultural Pupils, &c., £97 9 11		
	Purchase of Live Stock and General Farm Expenses, ... 321 10 8	419 0 7	
	BATH MODEL AGRICULTURAL SCHOOL:		
	Salary of Agriculturist, ... £6 15 1		
	Purchase of Live Stock and General Farm Expenses, ... 61 16 10	68 11 11	
	BELFAST (ULSTER) AGRICULTURAL SCHOOL:		
	Salary, &c., of Agriculturist, and Maintenance of Resident Agricultural Pupils, . £54 7 6		
	Purchase of Live Stock and General Expenditure connected with the Literary and Agricultural Departments, . . . 239 8 7	293 16 1	
	DERRYCASTLE MODEL AGRICULTURAL SCHOOL:		
	Salary of Agriculturist, ... £42 0 0		
	Purchase of Live Stock and General Farm Expenses, ... 93 7 5	135 7 5	
	Carried forward, . £	1,737 7 10	580,582 13 9

ACCOUNT of RECEIPTS

	CHARGE.	£	s.	d.	£	s.	d.
Schod. F 4.	RECEIPTS FOR SALES—*continued.* Brought forward, . .	3,845	18	7	733,228	16	1
	GLANDORE SCHOOL FARM, Co. CORK, ...	10	3	4			
	KILKENNY SCHOOL FARM, Co. KILKENNY, ...	463	19	4			
	KYLE PARK SCHOOL FARM, Co. TIPPERARY, . . .	16	0	0			
	LEITRIM SCHOOL FARM, Co. LEITRIM, ...	8	17	11			
	LIMERICK SCHOOL FARM, Co. LIMERICK, . . .	470	5	6			
	MOUNT TRENCHARD SCHOOL FARM, Co. LIMERICK . .	21	0	0			
	MUNSTER SCHOOL FARM, Co. CORK, ...	722	12	5			
	Carried forward, ... £	5,558	17	1	733,228	16	1

and DISBURSEMENTS—*continued.*

Sched.	DISCHARGE.	£	s.	d.	£	s.	d.
	Brought forward, . .				1,737	7	10	580,582	13	9
F 4.	DUNMANWAY MODEL AGRICULTURAL SCHOOL:									
	Salary, &c., of Agriculturist, and Maintenance of Resident Agricultural Pupils .	£2	8	0						
	Purchase of Live Stock and General Farm Expenses, ...	25	3	4						
					27	11	4			
	ENNISKILLEN MODEL AGRICULTURAL SCHOOL:									
	Salaries, ...	£27	0	0						
					27	0	0			
	FARRAHY MODEL AGRICULTURAL SCHOOL:									
	Sundries, ...	£1	1	0						
					1	1	0			
	GLANDORE MODEL AGRICULTURAL SCHOOL:									
	Salary of Agriculturist, ...	£11	12	8						
	Purchase of Live Stock and General Farm Expenses, ...	35	15	5						
					47	8	1			
	GORMANSTOWN MODEL AGRICULTURAL SCHOOL:									
	Salaries, &c., of Literary and Agricultural Departments, ...	£16	3	4						
	Purchase of Live Stock and General Farm Expenses, ...	27	12	1						
					43	15	5			
	KILKENNY MODEL AGRICULTURAL SCHOOL:									
	Salary, &c., of Agriculturist, and Maintenance of Resident Agricultural Pupils, . .	£217	3	4						
	Purchase of Live Stock and General Expenditure connected with the Literary and Agricultural Departments, ...	440	16	1						
					657	19	5			
	KYLE PARK MODEL AGRICULTURAL SCHOOL:									
	Salary of Agriculturist, ...	£	—							
	Rent, ...	35	10	0						
					35	10	0			
	LEITRIM MODEL AGRICULTURAL SCHOOL:									
	Salary of Agriculturist, &c., ...	£1	14	3						
	Purchase of Live Stock and General Farm Expenses, ...	38	6	11						
					40	1	2			
	LIMERICK MODEL AGRICULTURAL SCHOOL:									
	Salaries and Allowances, Agricultural Department, and Maintenance of Resident Literary and Agricultural Pupils, . . .	£618	8	5						
	Purchase of Live Stock and General Expenditure connected with the Literary and Agricultural Departments, . . .	290	2	0						
					908	10	5			
	MOUNT TRENCHARD MODEL AGRICULTURAL SCHOOL:									
	Rent, &c., ...	£	—							
					—					
	MUNSTER MODEL AGRICULTURAL SCHOOL:									
	Salaries, &c., of Agriculturist, and Maintenance of Resident Agricultural Pupils, &c., .	£160	19	7						
	Purchase of Live Stock and General Expenditure connected with Literary and Agricultural Departments, ...	975	15	2						
					1,136	14	9			
	TEMPLEDOUGLAS MODEL AGRICULTURAL SCHOOL:									
	Salaries—Literary and Agricultural Departments, ...	£	—							
	Purchase of Live Stock and General Farm Expenses, ...	14	6	4						
					14	6	4			
	Carried forward, . . . £				4,677	5	9	580,582	13	9

ACCOUNT of RECEIPTS

Sched.	CHARGE.	£ s. d.	£ s. d.
	Brought forward, . .	5,558 17 1	733,228 16 1
	RECEIPTS FOR SALES—*continued.*		
F 4.	WOODSTOCK SCHOOL FARM CO. KILKENNY, . .	8 14 0	5,567 11 1
	EXCHEQUER EXTRA RECEIPTS, payable to H.M. Exchequer:		
	Amount received for Books, School Requisites, and Apparatus sold to the National Schools in Ireland, at reduced prices, during the twelve months ended 31st March, 1877, . .	—	25,914 10 7
	Do., Miscellaneous, ...	—	6,600 4 1
	PRIVATE CONTRIBUTION FUND, being dividends on Legacies and Donations invested in Government Securities, . .	—	86 0 10
	INCOME TAX DUTY:		
	Per Assessor of Income Tax for the Establishment, being deductions under the head of Salaries, &c., . . .	—	623 5 11
	SUNDRY REPAYMENTS IN AID OF GENERAL ACCOUNT VOTE 1875–6, ...	—	8 0 9
	CONTRIBUTORY UNIONS: Results Fees Account, . . .	—	28,657 6 9
		£	800,685 16 1

and DISBURSEMENTS—*continued.*

	DISCHARGE.	£ s. d.	£ s. d.
	Brought forward, . .	4,677 5 9	580,582 13 9
Sched. F 4.	WOODSTOCK MODEL AGRICULTURAL SCHOOL:		
	Allowance to Agriculturist, ...	—	
	Rent, ...	8 14 0	
	DUNLEWY MODEL AGRICULTURAL SCHOOL:		
	Salary, &c., of Agriculturist, and General Expenditure, .	4 0 0	
	Agricultural Schools under Local Management, and General Expenditure, ...	759 3 0	
			5,449 2 9
	BOOK AND SCHOOL APPARATUS DEPARTMENT:		
	Book Porters' Wages, ...	607 12 0	
G. 1. 2.	Contractors for Paper, Printing, and Binding of National School Books; and for Maps, Apparatus, and School Requisites, purchased from Publishers, ...	36,909 7 7	
			37,516 19 7
H.	POUNDAGE ON POST OFFICE ORDERS, . . .	—	2,609 0 2
	EXCHEQUER EXTRA RECEIPTS:		
	Amount paid over to the Exchequer for Books and Requisites,	—	28,162 9 6
	Do. for Model School Fees, ...	—	1,801 15 5
	Do. Miscellaneous, ...	—	10,055 9 5
	PRIVATE CONTRIBUTION FUND, ...	—	107 0 0
	COMMISSIONERS OF INCOME TAX:		
	Payments of Deductions for Income Tax under the head of Salaries and Allowances, ...	—	555 11 2
	PARLIAMENTARY GRANT, 1875–6	—	64,720 9 9
	Savings surrendered, ...		
	Payment on Account Vote Year 1875–6, ...	—	5 0 0
	CONTRIBUTORY UNIONS: Results Fees Accounts, . .	—	30,499 19 6
			762,065 11 0
	BALANCE on the 31st March 1877, . . .	—	38,620 5 1
	J. C. TAYLOR, *Financial Assistant Secretary.*		£ 800,685 16 1

WM. HOMAN NEWELL,
JOHN E. SHERIDAN, } *Secretaries.*

Education Office, Dublin, 1877.

NAMES OF THE COMMISSIONERS

OF

NATIONAL EDUCATION IN IRELAND,

ACCORDING TO THE DATES OF THEIR RESPECTIVE APPOINTMENTS.

Rev. Dr. Henry, President, Queen's College, Belfast.
His Grace The Duke of Leinster.
James Gibson, Esq., Q.C.
Right Hon. Mountifort Longfield.
Right Hon. the Lord O'Hagan.
Right Hon. James Henry Monahan.
Right Hon. Mr. Justice Lawson.
John Lentaigne, Esq., C.B.
John O'Hagan, Esq., Q.C.
Right Hon. Mr. Justice Fitzgerald.
James William Murland, Esq.
Right Hon. Lord Chief Justice Morris.
Rev. Charles L. Morell.
Rev. John H. Jellett, F.T.C.D.
Most Rev. Marcus G. Beresford, Archbishop of Armagh and Primate of all Ireland.
Right Hon. Viscount Monck, G.C.M.G.
Patrick Joseph Keenan, Esq., C.B., Resident Commissioner.
Sir Dominic J. Corrigan, Bart.
Viscount Gormanston.
Sir Robert Kane, F.R.S.

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APPENDIX

TO THE

FORTY-THIRD REPORT

OF THE

COMMISSIONERS

OF

NATIONAL EDUCATION

IN IRELAND,

(FOR THE YEAR 1876).

Presented to both Houses of Parliament by Command of Her Majesty.

DUBLIN:
PRINTED BY ALEXANDER THOM, 87 & 88, ABBEY-STREET,
PRINTER TO THE QUEEN'S MOST EXCELLENT MAJESTY.
FOR HER MAJESTY'S STATIONERY OFFICE.

1877.

[C.—1757 I.] *Price 9d.*

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TO THE

FORTY-THIRD REPORT

OF

COMMISSIONERS OF NATIONAL EDUCATION IN IRELAND,

(1876.)

APPENDIX A.

Appendix A.

Annual Reports of Professors and Head and District Inspectors.

The Commissioners desire it to be distinctly understood that they do not hold themselves responsible for the opinions expressed in these Reports, nor do they feel called upon to adopt any suggestions they may contain. They reserve to themselves the right of striking out any passage which they may consider irrelevant.

Report of the Professors on the Central Model Schools, and the Training Department, for the year 1876.

Professors' Report on Central Model Schools and Training Department.

5th March, 1877.

Gentlemen,—We beg to submit, for the information of the Commissioners, our report on the Central Model Schools, and the Training Department, for the year 1876.

I.—Central Model Schools.

At the close of the year 1875, there were on the rolls of the Central Model Schools, 1,703 pupils. During 1876, 909 new pupils were admitted (of whom none are included in the preceding 1,703); so that the total number appearing at any time on the rolls during 1876, was 2,612; of whom 1,075 were struck off (counting no name twice): leaving at the end of the year 1,537 on the rolls. The average attendance during the year was 1,259, as against 1,379 in 1875. We believe the diminution of the attendance is only temporary, and that it was caused by the increased rates of fees noticed further on.

Of the 1,537 pupils on the rolls at the end of 1876, 743 were Roman Catholics; 581 were Protestants of the late Established Church; 151 were Presbyterians (including 6 Unitarians); 56 belonged to other Christian religious denominations; and 6 were Jews.

The times for separate religious instruction were two hours on Tuesdays (10 to 12 o'clock), and half an hour (10 to 10½ o'clock) on the other days of the week. At these times the Protestant children received instruction from the clergymen of their respective denominations; and the Roman Catholic children were instructed by the Roman Catholic teachers.

The secular instruction, during which all the children are brought together, without any distinction of religious denomination, occupy 4½

Appendix A.

Professors' Report on Central Model Schools and Training Department.

hours (10½ to 3 o'clock) on Mondays, Wednesdays, Thursdays, and Fridays; 3 hours (12 to 3 o'clock) on Tuesdays; and 2 hours (10½ to 12½ o'clock) on Saturdays. The children are besides permitted and encouraged to attend, if their parents wish them to do so, between 9 and 10 o'clock every morning, to receive instruction in secular branches from their teachers, all of whom are present. Although this is what may be called a voluntary class, about two-thirds of the children are present on an average every day, and much valuable school work is done.

Of those on rolls at the end of the year, 14 per cent. were in the first or lowest class; 15 per cent. in second; 19 per cent. in third; 17 per cent. in fourth; 21 per cent. in fifth; and 14 per cent in the sixth or highest.

The average age of all the pupils (not including those of the Infants' School) was 12 years; the average age of the pupils of the Infants' School was 6¼ years.

In January, 1876, a £1 fee was adopted in addition to those already in existence; and as opportunities offered during the year, the fees were raised where the circumstances of the parents justified it, so that the numbers at the high fees increased, and those at the lowest fee lessened. This caused a slight diminution in the attendance, though the total amount of fees exceeded that of the previous year. During the year the rates were £1, 10*s.*, 5*s.*, 2*s.* 6*d.*, and 1*s.* 1*d.*, per quarter, all payable in advance. The rate paid by each pupil was determined, as formerly, by the circumstances of the parents, so far as they could be ascertained. At the end of the year there were 17 pupils paying £1 a quarter; 199 at 10*s.*; 485 at 5*s.*; 509 at 2*s.* 6*d.*; 256 at 1*s.* 1*d.*; and 71 free (paid monitors). The total amount of school fees received during the year was £1,349 16*s.* 9*d.* The average amount for each pupil in average attendance was £1 1*s.* 5*d.* The total amount received during 1875 was £1,239 8*s.* 5*d.*; and the average per pupil in average attendance was 17*s.* 11¾*d.*

We examined the schools for results in the month of May. Of the 1,693 pupils on the rolls at the end of the preceding month, 1,190 had made 90 attendances within the year ended the 30th of April, and were therefore eligible for examination; of these 1,079 were actually presented and examined. Generally speaking, and without individualizing particular schools, it may be stated that the answering was creditable, and showed, what indeed we already knew from our constant observation of the schools, that the teachers had attended diligently to their work, and had carefully prepared their classes in the several subjects of the programme. In the absence of detailed tabulation the following statement will give a sufficient idea of the answering in the several subjects.

The per-centage of passes to the total number of pupils examined was, in reading, 89; in spelling, 90; in writing, 96; in arithmetic, 78; in grammar, 55; in geography, 73; in book-keeping (boys), 38; in needlework (girls), 79.

In addition to the subjects included in the ordinary school course, the advanced boys were examined in geometry and mensuration (First Book of Euclid, and the area of right-lined figures); and in algebra (as far as easy simple equations). In each subject 29 were examined, all of whom passed in both. Another set of pupils were presented for examination in connexion with the Science and Art Department, in three subjects; of whom 18 passed in "elementary mathematics," 29 in "electricity and magnetism," and 25 in "physical geography."

At the boys' side the greater number of the pupils can sing pleasingly in unison, about a dozen of the school songs; and a small number can

sing in parts. The girls sing a variety of songs both in unison and in parts, with great taste and correctness. A large number of them know the simple elements of the theory of music, and the more advanced can transpose and sing at sight an easy passage.

There is a large piano class taught by extern teachers. This class, which is very popular, consists on an average of 71 pupils, who receive two half hours instruction per week, for which they pay 10*s.* a quarter, in addition to the other school fees. Three teachers are constantly employed, each of whom receives the fees of the pupils of her own class; and the teaching is carried on in detached class-rooms not otherwise used, out of hearing of the ordinary school-rooms.

The examination in drawing was carried on by requiring the pupils to copy outlines in freehand, the sketches placed before them for imitation being graduated according to the ordinary classification of the pupils. Of 395 pupils presented 269 passed.

Besides this examination carried on by ourselves, an examination of the boys in freehand drawing, practical geometry, and model drawing, was held two months before (in March, 1876), in connexion with the Science and Art Department. Of about 300 examined, the exercises of 179 were marked by the examiners as "satisfactory," of 75 as "passed," and of 17 as "excellent." At the boys' side the drawing is, and always has been, very successfully taught; and the pupils who remain to pass through fifth and sixth classes, carry away with them a very considerable practical knowledge of the subject, such as may at any time be turned to use in real life.

No results fees were paid for singing or drawing, as these subjects are taught by teachers specially paid for them; and for the same reason no fees were allowed for needlework in the large school for girls.

At the boys' side there was a class for the study of Latin and Greek, attended on the average by 15 pupils. There were classes in French in both boys' and girls' schools, attended in the former by 34, and in the latter by 38 pupils on the average. The instruction in these subjects was given by extern teachers within school hours, but so as not to encroach on the minimum time required by the rules of the Board to be devoted to the ordinary branches. These teachers receive no salary from the Commissioners; but the proceeds of the pupils' fees are handed over to them, viz., 10*s.* a quarter for Latin and Greek (both included), and 5*s.* for French, which the pupils pay in addition to the ordinary school fees. Besides this, the teachers receive results payments for those of their pupils that are successful at the examination, viz., 15*s.* per pass for Latin, 15*s.* for Greek, and 7*s.* 6*d.* for French.

These classes did not do well during the past year. There were only 9 presented for examination in Latin, of whom only 5 passed; while none were put forward in Greek. Of those learning French 31 (boys and girls) were presented for examination; but the result was a break down, as only 13 could be passed, and all of these, with one exception, got the lower passing mark, which denotes that they had barely attained the minimum amount of proficiency required. Immediately after the examination a new teacher was engaged; and during the latter part of the year, the classes were carried on satisfactorily.

The needlework department continues to be carefully and successfully conducted, and reflects much credit on the several teachers. The children are taught the various stages of plain sewing and knitting; and the more advanced girls receive in addition instruction in the use of the sewing machine, and in fancy work of various kinds. They are also exercised in cutting out and making all the more useful articles of dress.

Appendix A.

Professors' Report on Central Model Schools and Training Department.

The materials are furnished to them at cost price, and the articles, when completed, are either retained by the pupils who make them or purchased by their friends. By this arrangement, the work department has been rendered wholly self-supporting.

Of the 1,693 pupils on the rolls on the 30th of April, 503 were ineligible for results examination, as they had not attended 90 days within the year. It must not be supposed that all these pupils fell short through irregularity; 402 of them were admitted during the months of January, February, March, and April, whose time in the schools was too short, therefore, to enable them to make 90 attendances. During the three or four months preceding the examination there was no distinction made between these and the pupils who were certain or likely to have the full number of attendances, so that they were as carefully instructed as those who were preparing for examination.

The total amount of results fees, as determined by the examination, was £553 11*s.* 6*d.*, which was distributed among the teachers and assistants according to the number of passes made by the pupils of their several schools.

Since the date of our last published report, the staff of pupil teachers and monitors has been brought in all respects under the same regulations as those of the District Model Schools. In accordance with the new arrangements, there are two pupil teachers in each of the principal schools—Boys', Girls', and Infants'; and there are 30 monitors in all the Boys' Schools, 26 in the Girls', and 16 in the Infants' School.

In the beginning of the year we subjected all the pupil teachers and monitors to a careful examination in the various subjects of the Programme. We may remark that the candidates who come forward for appointment in the first instance as third-class monitors, are almost always far beyond the minimum required by the Programme, and they generally keep the start throughout their whole course. They have all through reasonable time allowed them for their own studies, and they are carefully instructed by their several teachers between 9 and 10 o'clock in the mornings. Those presented to us for examination last year were, generally speaking, well prepared in all the subjects. In several they were beyond the Programme, and some of them were acquainted with subjects not required by the Programme at all, such as Elementary French and Latin, some branches of Physical Science, an extended course of Geography, Drawing, &c.

Evening School.

The Evening School is open on 4 days of the week (Tuesday, Wednesday, Thursday, Friday) for 6 months of the year (from 1st of October to 31st of March), and the hours of attendance are from 7½ to 9½ o'clock. The total number of pupils on rolls during the Session of 1875–76 (which included 3 months of 1875) was 379, and the average attendance was 134. The school was taught by members of the day-school staff, who chose to add to their income by employing themselves in this manner.

The religious denominations of the pupils were—241 Roman Catholics, 118 members of the late Established Church, 15 Presbyterians, and 5 other denominations. The pupils' occupations were—88 clerks, 137 artisans and apprentices, 50 shopmen, and 104 labourers and others. As to age, 134 were under 16 years, 177 were 16 and under 20, 54 were 20 and under 25, and 14 were 25 and above.

The subjects taught were reading, writing, arithmetic, spelling, dicta-

tion ; and for more advanced pupils, grammar, geography, book-keeping, geometry, and mensuration.

The rates of payment were 7*s.* 6*d.*, 5*s.*, and 2*s.* 6*d.* per quarter, payable in advance; the rate in each case being determined by the circumstances of the pupil. The pupils were allowed the option of paying at once for the whole session, in which case a reduction of 20 per cent. was allowed. There were 146 at the highest rate, 143 at the second, and 90 at the lowest. The total amount of school fees received was £128 14*s.* ; and the results fees, accruing from an examination held by us in March, amounted to £27 14*s.* 3*d.* The whole of these, both school fees and results, were divided among the teachers of the Evening School, who received, in addition, a small monthly salary from the Commissioners.

The Evening School is carried on in the smaller school-rooms, which are well lighted, well warmed, and extremely comfortable. Five, six, or more of them are occupied, according to the total number of pupils. In each there is an average attendance of about 25 pupils, under a single teacher, and one master manages and superintends all.

A sort of classification is carried out, as far as practicable, in distributing the pupils to the different rooms :—thus, the very young pupils are kept in one room ; young men who have mastered the ordinary elementary subjects in day schools, and who now wish to brush up what, perhaps, they have to some extent forgotten, and, in addition, to study some advanced branches, such as mensuration, book-keeping, &c., are in another ; in a third there are grown-up pupils—men, or those approaching manhood—whose early education was neglected, and who now have to begin at the very elements of reading, writing, arithmetic, and spelling ; and so on. This classification is only a very general sort of thing, but as far as it goes, it is, for obvious reasons, extremely useful.

It is a real pleasure to walk through the several rooms of the Evening School. There is an entire absence of everything approaching levity. The pupils are almost invariably well conducted, and extremely anxious to make the most of their time. A visitor is at once struck with the general air of quietness and with the cheerful and earnest attention of the pupils, whether they are working for themselves or receiving collective lessons from their teachers.

II.—Training Department.

In a former report we pointed out the desirableness of having an extended course of training of 10 months, and we proposed that the short course of 5 months already in operation might be continued, but that it should in future be restricted to such principal teachers of National schools as could not conveniently remain for the longer period. The Commissioners were pleased to adopt our suggestions, and accordingly, in August, 1875, the students summoned for training were distinguished into two classes—the one to remain for the usual term of 5 months ; the other to continue for 10 months, ending in June, 1876. The former consisted of principal teachers only who had charge of National schools ; but as their course began and ended in 1875, we shall not notice them further in this Report. The latter included all eligible candidates—principals, assistants, pupil teachers, monitors. The whole number of students in this long course was 143 (62 males and 81 females).

During 1876 there were two short courses—from January to June, and from August to December. In the former there were 47 principal teachers (25 males and 22 females), and in the latter 37 (16 males and 21 females).

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In January, 1876, 17 males and 14 females were admitted to special class; and their time was on this occasion limited to five months, in order that the course of special training might in future commence in August and terminate in June.

Another long course and another special class were commenced in August, but as these will not terminate till June, 1877, we think it better not to refer to them further at present; but in our next report we shall give a full account of them.

The following are the most important statistics of the members composing the classes with which we are concerned in this report:—Of those admitted to the long course of 1875-76, 34 were principal teachers, 49 were assistants, 11 were pupil teachers from Model schools, 27 were paid monitors, and 22 were pupils of National schools. Of the same students, 73 were under 21 years of age, 19 were 25 and above; and the average ages were—males, 21; females, 20·8. Of the two short courses of 1876, the average age of the males was 24·8, and of the females 23·8. As to religion, grouping all three classes together, 100 were Roman Catholics, 60 were members of the late Established Church, 55 were Presbyterians, and 12 belonged to other denominations.

The daily routine of business was similar, in a general way, to that pursued in previous courses, only with such modifications as were rendered necessary by the introduction of additional classes. During the times set apart in the schools for religious instruction the Protestant students were taught by the clergymen of their respective denominations, and all the students in training, of all denominations, took part in the separate religious instruction of the children. They were also afforded every facility for performing their religious duties and for attending Divine worship.

On Tuesdays and Saturdays, when the weather permitted, the male students went to the Albert Model Farm, Glasnevin, for instruction in agriculture.

We are glad to be able to say that the ten months course was attended with the advantages we anticipated. During the second session we were able not only to go over ground that could not possibly be traversed in a short course, but also to review what had been done in the first session, so as to lay what we believe to be a solid and lasting foundation of scholarship, and of technical knowledge of the proper business of a teacher.

During the whole ten months the students of both the long and the short courses, continued to teach daily in the schools for one, two, or three hours at a time, according to circumstances, superintended by the professors, when they were able to withdraw themselves from other business, and by the teachers of the schools, so far as the latter could do so consistently with their other duties. Besides this, we brought up classes from the schools to the lecture-rooms day after day, taught lessons in the several subjects in presence of the students, and caused them to teach, one after another, in our presence and in that of the other students, following as closely as possible the model set before them for imitation. This continued during the whole time, and it was carried out with the students of both the long and the short courses.

All the female students received instruction in drawing, five hours a week; and in the theory and practice of singing on four mornings of the week; in both cases from special teachers of those subjects. A selection of 36 were taught the harmonium by a teacher paid by the Board for this duty; and in making this selection preference was given to the members of the special class, and after them to those among the

general class who were principal teachers of National schools. Only one half hour per week could be afforded to each, but they were allowed half an hour each evening to practise. A few had some previous knowledge of the instrument, but the greater number were mere beginners, most of whom were able, at the end of the course, to play the airs of several of the ordinary school songs; and all had attained such a knowledge as would enable them to follow it up by their own exertions after returning to their schools.

Outside these 36, any of the female students who wished to learn the piano were permitted to receive instruction from one of the teachers employed in the school, on the same terms as the school children—two half-hour lessons per week for 10*s.* a quarter. Twenty took advantage of this permission, and contributed among them the hire of four pianos to enable them to practise.

The male students received instruction in drawing for an hour on three days of the week; and a selection were taught singing for an equal time; in both cases by special teachers. The whole of the male special class and 22 of the most intelligent of the long course male students received instruction in Latin and Greek, four hours a week on the average. In the case of some, they took away with them a considerable elementary knowledge; and all had advanced so far as to enable them to prosecute the study with little or no aid afterwards.

In the training-house in Talbot-street, under the superintendence of Miss Byrne, the females were daily exercised in the performance of domestic duties. All had, in turn, to get breakfast and evening tea, to lay the cloth, to serve up the different meals, and afterwards to wash and lay by the articles that had been used. They washed and made up all the fine articles of their own dress (collars, cuffs, laces, &c.), under the direction and instruction of the superintendents. They were also instructed in plain cooking—had, in fact, to go through the process of cooking themselves in their turn—and they were taught to prepare all articles of diet necessary for invalids.

In the needlework department they were constantly practised in knitting, and in cutting out and making up all the common articles of dress. They were taught the use of the sewing machine; and none left the establishment who were not able both to use it themselves and to teach it in their schools. Fancy work also received attention; and those that showed a special aptitude for this branch were afforded opportunities of indulging their taste to a reasonable extent. But it was to plain work—cutting out and making ordinary articles of dress—as being by far the most important, that the chief part of the needlework time was devoted. Each student of the long course was required to make two dresses for herself, and each student of the short course one. They cut them out and made them up under the superintendence of the teachers, in accordance with the practical directions contained in the Manual of Needlework. They were allowed to select their own materials, subject to Miss Byrne's approval, and the Commissioners allowed 6*s.* towards the cost price of each, the students themselves paying the rest.

The long course that began in August, 1875, and the short course of the first half of 1876, both terminated in June; we examined and classified the members of both courses in June, and our classification was afterwards confirmed by the Board. At the time of their admission, 19 were in second class, 117 in third class, and 54 were unclassed (of whom 50 belonged to the long course). The result of our classification was that 11 were placed in first class, 95 in second class, 63 in third

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class; 9 were "not trained," as having left the establishment from various causes before the end of the course; and there were 12 whose attainments were not sufficient to enable us to class them.

With respect to these last it is to be observed, that 10 of them belonged to the long course; that this course, as being the first, was to some extent experimental, and that we were willing to try how far we could succeed, after ten months' instruction, in raising students of low attainments to the level of classification. Accordingly we admitted, with one or two exceptions, all the candidates presented to us in August, 1875, though a good many would have been rejected had we examined them in strict accordance with the programme for third class teachers; and the result showed that we fixed our standard rather low.

As the result of the instruction received by the members of all the classes whose courses terminated in 1876, in singing, drawing, and playing the harmonium, we reported to the Board that 88 were competent to teach singing, 81 to teach drawing, and that 43 females could play the harmonium.

At the termination, in December, of the second short course of 1876, the new regulation of the Commissioners, that a head and a district inspector should henceforth be associated with us in the classification of the teachers came for the first time into operation. Mr. Fitzgerald, head inspector, and Mr. Gillic, district inspector, were selected by the Board on this occasion. A short time before the day of classification, we held a conference, in which, after a very interesting discussion, we agreed on the method of conducting the examination. For the rest we shall only observe that the arrangements we followed were in strict conformity with the rules on the subject laid down by the Commissioners.

The following statement gives the result of the classification recommended by us, and afterwards confirmed by the Board:—At the time of admission in August, 6 were in second class, 28 were in third class, and 3 were unclassed. After our classification 6 were in first class, 17 in second, 11 in third, and 3 were marked "not trained," as they had left before the end of the course.

We are, gentlemen, your obedient servants,

JOHN RINTOUL,
D. O'SULLIVAN,
J. CORBETT,
P. W. JOYCE,
} *Professors.*

The Secretaries, Education Office.

GENERAL REPORT by JAMES PATTERSON, Esq., Head Inspector, on SCHOOLS INSPECTED, and TEACHERS and MONITORS EXAMINED by him during the period commencing 1st April, 1875, and ending 31st March, 1877.

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21st April, 1877.

GENTLEMEN,—The districts to which this report relates are the following, viz. :—

District 37,	Official Centre,	Naas.
,, 38,	,,	Dublin, South.
,, 39,	,,	Carlow.
,, 40,	,,	Bray.
,, 41,	,,	Portarlington.
,, 43,	,,	Templemore.
,, 44,	,,	Athy.
,, 46,	,,	Tipperary.
,, 47,	,,	Kilkenny.
,, 50,	,,	Enniscorthy.

Three classes of schools, conducted on the same principles, yet differing in certain obvious respects, come to be noticed in a general report, viz. :—The Model schools under the exclusive management of the Commissioners of National Education, Convent schools conducted by monks or nuns, and ordinary National schools taught by lay teachers under the management generally, but not necessarily, of clergymen. I commence with the last, which is the most numerous class.

In the two years to which my report relates I inspected and fully examined 118 ordinary National schools. The pupils were individually examined as for payment to their teachers by results, and their proficiency noted in detail. A larger number incidentally inspected will not be comprehended in the following remarks, though, so far as the less complete notes taken on their state justify an inference, it is in harmony with that drawn in each particular from the general state of the schools more thoroughly examined.

Management.—Of the 118 schools 108 have Roman Catholic managers, with two exceptions clergymen. Most of these gentlemen, however, have several schools under their management. The teachers, and nearly all the pupils in these schools, are Roman Catholics, as are also the teachers and most of the pupils of 5 schools under Protestant management. Of the remaining five 3 were formerly Established Church Parochial schools and 2 schools long ago established for the benefit of Protestant colonies in the midst of a Roman Catholic population. In every case I found the rules of the Board, as to freedom of religious instruction and non-interference with parental right, strictly observed.

The concern taken by managers in their schools is chiefly in regard to the appointment of the teachers, the arrangements for religious instruction, and the care of the edifice. They seldom remove teachers unless on the ground of incompetency communicated to them by the Board, and they seldom or never take part, even by way of direction, in the secular instruction, preferring to leave that altogether to the teachers under instruction of the officers of the Board. In general, when they have the means, they exhibit laudable anxiety to provide and maintain suitable school-houses, but there are few instances of residences for the teachers being also provided. In many cases the managers also exert a very effective influence in inducing regular attendance at school, but in not so many as is desirable.

School-houses.—I am happy to be able to report continued improvement in the class of school-houses being erected, especially in the Dublin

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district, which can now boast of a very large number of admirable buildings. But in many rural localities the school-houses are still unsuitable, being often small, damp, dark, and unwholesome, and oftener rendered in winter places of discomfort avoided by children, by being without fire, or at least sufficient fire to warm them. This I believe to be a main cause of the thin attendance of children at school during several months of the year.

Teachers—Principals.—Of the teachers I have to say that they are, on the whole, a most exemplary body of men and women, loyal to the state, well conducted in public, and, so far as I have opportunities of judging, in private, kind to their pupils, and really anxious for their improvement. Many of them have been grievously tantalized by witnessing the increase of income, in the shape of contingent results fees, to their neighbours denied to themselves owing to their being in a different poor law union, yet they have suffered patiently, and with good temper. But though I recognise so many excellent qualities in these men and women, I miss one in many of them, one the want of which is the greatest loss to themselves and to their pupils, viz., self-reliance and persevering endeavour to improve their own position by means always within their own power. This endeavour could be made in the way of preparation by study for the examinations, by passing which promotion to higher classification is to be won; by systematic and diligent teaching in accordance with the results programme; by taking pains to render the school at all times attractive to the children, and fit for their reception; and by friendly visits to the children's homes, and firm, yet gentle action at school, cultivating, as some teachers do, but most fail to do, a habit of regular and punctual attendance.

The assistant teachers have not opportunity to exhibit much individuality of character. As a rule they conduct themselves well in their subordinate position, and appear respectable notwithstanding the slenderness of their means. In general they are most useful officers. It is to be regretted that principal teachers do not always recognise the advantage their schools might derive from the employment of a sufficient staff of qualified assistants. Sometimes candidates for such situations are not forthcoming, but more frequently I believe the cause of their not being employed is a disinclination on the part of the head-master to give up to his assistant, as he would be required to do, a share of the results fees. Through this mistaken policy the results produced in the schools are much less considerable than they might be, and the payment, consequently, less in amount. I have not the same complaint to make of head mistresses.

Were assistant masters more generally employed in the schools entitled to their services, they would form a useful reserve from which to draw principal teachers when vacancies occur. For want of such a reserve it is often difficult to find a suitable candidate for a desirable situation; for passed monitors are still too young and inexperienced for such appointments, and the consequence is that within the last two or three years a number of schools attended by boys within my circuit have been amalgamated with girls' schools taught by female teachers only.

I cannot affirm that the teachers, as a body, are very studious. The annual examinations seem to prove the reverse. In my ten districts, containing about a thousand principal teachers, only 56 (17 men and 39 women), presented themselves at the examination as candidates for promotion in 1875; and 17 men and 23 women in 1876; and of these only 16 were promoted in 1875, and 11 in 1876. The circumstances of the teachers are unfavourable to study. Few of them have had oppor-

tunity in early life to form the habit; fewer, perhaps, owing to the opposition of their clerical authorities to the Board's training establishments and model schools, have had the advantage of systematic direction in their reading, and those who are not married, and have no domestic cares to distract them, are generally obliged to lodge in households where they can have no privacy or leisure for study.

Besides the teachers, candidates for promotion, all new teachers appointed since last examination, and all others whose classification has not yet been decided, are summoned to examination each year. Of such the District Inspectors and I examined 44 men and 58 women in 1875, and 34 men and 31 women in 1876. Most of these were young persons averaging about 20 years of age, and most of them were assistant teachers. Eighty (26 men and 54 women), were *classed* in 1875, and 46 (23 of each sex), in 1876. Nearly half of the remainder were retained as "provisionally classed till next year," and the rest absolutely dismissed. The candidates for first appointment as teachers in National Schools are clearly, therefore, of no very high order. These statistics, however, refer only to such as have not had three years' training as second-class monitors in National Schools, of whom I now proceed to speak.

The Commissioners now pay small salaries to three classes of monitors in National Schools. Third class, who may be appointed at ten years of age, for three years at £4 a year; second-class, who may be appointed at thirteen years of age, also for three years, at £6, £8, and £10; and first-class, who must previously have served three years in second-class, and passed satisfactorily the second-class monitors' final examination which is the same that teachers, candidates for the first division of third-class, are obliged to pass. The pay of the first-class monitors is £14, £17, £20, for boys, and £12, £15, £18 for girls; their course also being for three years. First-class monitors at the end of their second and third years, or sometimes before the end, are examined on the programme for second-class teachers.

In 1875 we examined 126 second-class monitors in their final year. Of these 25 were boys and 101 girls; 39 of the girls being from Convent schools. Of the 126 persons, 64 passed the examination satisfactorily, and were, for the most part, promoted to the first class, but some went out either as certificated teachers or to other situations; 32 passed the examination only tolerably, and thus were ineligible for promotion to first-class, but got certificates of the lowest class qualifying them to take situations as teachers; 30 failed to pass and got no certificate. In 1876 we examined 227 second-class monitors, 56 boys and 171 girls, 85 of the latter from Convent schools. Of the 227 persons, 108 passed satisfactorily, 46 only tolerably, and 73 failed.

In 1875, again, we examined 82 first-class monitors, 6 boys and 76 girls; 44 of the girls being from Convent schools; 46 answered satisfactorily, 21 but passably, and 15 failed. The next year 92 first-class monitors, 13 boys and 79 girls, 51 of the latter from Convent schools. Of these 52 answered satisfactorily, 19 but passably, and 21 failed.

The large number of failures amongst the second-class in 1875 was mainly due to the recent shortening of their course from four years to three, and to the circumstance that many of the examinees had, at the time of the examination, barely entered on the third and final year of their course. The failures in the first-class were due, I believe, to the inability of the teachers of those monitors to instruct them in the advanced programme for first-class.

Setting aside those who failed, there remained a large number of monitors very fairly qualified for appointment as teachers in National

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Schools. For the boys there were plenty of such situations open; for the girls, who were five times as numerous, scarcely any.

The recorded average daily attendance at the 118 ordinary schools for the twelve months before my visit to each was, total, 3,892 boys, and 3,125 girls=7,017. The numbers actually presented for examination were almost the same, viz., 3,985 boys, and 3,066 girls = 7,051. One-sixth of these were infants under seven years of age; three-fifths were between the ages of seven and twelve years; about another fifth under sixteen years, and one in a hundred sixteen years of age or more. Of the infants some were examined in the First Book class in which they could obtain four pass marks; those not so examined, but only in the infants' programme, could obtain only one pass mark each. The total number of marks given in the 118 schools was 23,288, or, deducting the infants' marks, 22,415, averaging about $3\frac{5}{6}$ marks per pupil in the First Book and higher classes. This proportion is much too small, seeing that a pupil in Second Book class may obtain four (a girl five), marks in ordinary subjects, one in third-class six or seven marks, in fourth or higher class eight marks, besides additional marks obtainable for the extra subjects of instruction, vocal music, drawing, geometry, algebra, physical science, sewing-machine, &c. Some schools obtained the full number of marks I should expect, some even more than would have satisfied me; but, on the whole, there were merited scarcely more than two-thirds of the number of marks that ought to have been given had the schools been conducted with full efficiency.

This "full efficiency," however, includes instruction in branches that come within our school programme, but are not always thought essential to a common school, viz.:—Grammar, geography, agriculture, book-keeping; and for boys of the advanced classes, geometry, mensuration, and algebra. It was in these branches chiefly that the pupils failed to obtain pass marks, but not a few failed also in the more necessary arithmetic, and a considerable number in spelling. The "results programme" has effected a marked improvement in the reading of the pupils; the repetition of poetry, which comes under that head, being an especially useful training of the eye, the ear, the voice, and the intelligence. In the writing too, and in the spelling, notwithstanding the exception taken above, good progress is being made; needlework of a simple kind is generally well taught, and there is some progress in other branches.

The behaviour of the children is generally excellent. Good temper is universal in this part of Ireland; though the boys in some portions of it be a little boorish, they are docile and good-humoured. The girls are often more sprightly, always gay and pleasant, and only to be found fault with for being rather too much given to prompt and copy, the result of good nature unrestrained, and insufficient self-reliance. The improving circumstances of the people, combined with the example and precept of the teachers, are causing the children, year by year, to pay greater attention to neatness and decency; and the care universally taken by their pastors of their catechetical instruction insures their being brought up in the knowledge of the principles of their religion.

In the 118 schools I found employed—

	Males.	Females.
Principal Teachers, ...	72	46
Assistant „	25	56
Monitors, ...	41	35

The payments by the Board and by the Poor Law Guardians to these amounted, for the previous year, to £7,356 salaries and gratuities; £2,338 results fees; and payments from local sources (school pence, &c.), to £2,164; total, £11,848.

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The receipts from local sources, indeed, probably exceeded the amount recorded, for they consist of so many small items contributed at very irregular intervals, that it is scarcely possible all should be entered in the books. It appears, however, that the payments by the Commissioners of National Education to those schools in salaries and small gratuities amounted to £1 0*s.* 11*d.*, or almost a guinea per annum, per pupil in the average daily attendance; and that received in the form of results fees from the Commissioners and the Boards of Guardians, to 6*s.* 2*d.* per pupil; and the recorded receipts from school pence and local contributions to about 6*s.* per pupil; in other words, that the teaching staff received altogether the sum of £1 13*s.* per annum for every pupil in the average daily attendance at the schools. Had all the schools been conducted as efficiently as the best, the sum would have been nearly or quite double this, and all the teachers have been in a comfortable position.

During the two years I made 15 inspections and full examinations of convent schools. One of these schools was conducted by monks, classed teachers, receiving class salary; the others were conducted by nuns, who, in one case only, were classed teachers receiving class salary, the remainder receiving the Board's grants in the form of capitation payment, at the rate of £20 per 100 pupils in the average daily attendance, instead of class salaries to the teachers; but all alike received salaries for their monitors, gratuities for training them, and results fees. The recorded average daily attendance at these schools was 877 boys, 3,214 girls = 4,091; and the numbers actually presented for examination, 610 boys, 2,621 girls = 3,231. The number of infants was in much larger proportion than in the ordinary schools, being nearly one-third of the whole. In almost all the convent schools the infants have the advantage of school-rooms for themselves, with special arrangements for their accommodation and distinct staff of teachers, so that they can be received and instructed in much larger numbers there than they can in the ordinary schools, that have seldom such provision. The total number of pass-marks given at examination to the pupils in the convent schools was 10,119, or, deducting those given the infants, 9,248, being at the rate of $4\frac{1}{10}$ marks per pupil in the first and higher classes (all, *i.e.*, above the infants). This is about one-fourth of a mark above the average ($3\frac{5}{10}$) in the ordinary schools, the difference being caused by the great number of marks given the second and third class girls in convent schools for needlework, counterbalancing which no marks could be given to boys in the ordinary schools.

The style of the children's reading in the convent schools is generally superior to that in the ordinary schools, but their knowledge of the subject-matter of the lessons is not so. Their writing is also generally better, and their needlework. In spelling, arithmetic, grammar, and geography they do not in general acquit themselves much better or worse than the average in other schools. The teaching is too much entrusted to monitors, the staff of teachers being small in comparison with the number of children to be taught. The precise number of teachers engaged in the schools I examined cannot be accurately stated, as, since, with the two exceptions mentioned above, they are not paid individually, like the teachers in other schools, there is no record of the individual teachers engaged or of the time they spend in the schools. The monitors were 58 in number—2 boys in the school conducted by monks, and 56 girls in the 14 conducted by nuns. The payments in salaries and capitation grants from the Commissioners of National Education amounted, for the year preceding my visit to each school, to £2,213 on the whole, and in results fees to £960 = £3,173, or about 15*s.* 6*d.* per

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pupil in the recorded average attendance. The amount received in school-pence is small, and that from other local sources is not stated in the school-books.

Of the Model schools under my charge at Inchicore (Dublin), Athy, Kilkenny, and Enniscorthy, only that at Inchicore, and that one only in its boys' and infants' departments, is attended by the number of pupils it is designed to accommodate. The families of the men employed at the Inchicore works of the Great Southern and Western Railway avail themselves of the boys' and infants' schools, and, to a small extent, of the girls' school. The girls' school languishes, and seems unlikely to improve under the present teacher. The schools at Athy and Kilkenny are attended by the children of Protestant inhabitants of those towns and the surrounding country within a radius of three or four miles, but by scarcely any Roman Catholics. At Enniscorthy the Protestant children are divided between the Model school and a school under, I think, Erasmus Smith's Board, and the Roman Catholics are prevented from attending the Model school. As the population, especially that requiring public aid for education, in all those places consists mainly of Roman Catholics, two of the three head teachers in each establishment are Roman Catholics, and the third a Protestant. The assistants of the Roman Catholic teachers are Protestants, and of the Protestant a Roman Catholic. All the teachers have been chosen for their superior qualifications and presumed efficiency.

The average daily attendance at these schools was, for the year, 273 boys and 221 girls—total, 494; the numbers presented for examination were 253 boys and 194 girls—total, 447. One-fifth of these were infants, and 9 altogether over 16 years of age. The total number of pass-marks given at examination was 2,082, or, deducting those given the infants, 1,993, being $5\frac{4}{5}$ per pupil in the classes above the infants' class. This is nearly 60 per cent. better than the marking in the ordinary schools, the result of the more systematic and efficient teaching. The superiority is seen in every branch of the programme.

There is an evening department of the Inchicore Model School, attended by apprentices and junior clerks employed in the railway works, youths from 14 to 21 years of age. It is open four evenings each week during the six winter months. The average attendance of pupils for the last session was 73, and 61 were presented for examination in reading, writing, including dictation exercise, and arithmetic. This is a very useful department of the school.

The incomes of the teachers of the Model schools are, of course, much higher than the average incomes of the teachers of ordinary National schools, the teachers' high classification entitling them to more in the first instance, and their class salaries being supplemented by the Commissioners of National Education as the patrons of the schools.

Each Model School has a staff of pupil-teachers and monitors, who, like the monitors in the other schools, are examined for classification at the end of their course. These young persons, being very regularly and carefully instructed by the head and assistant teachers, almost invariably pass their examinations satisfactorily, generally scoring the highest number of marks given.

I have the honour to be, gentlemen, your obedient servant,

JAMES PATTERSON, Head Inspector.

The Secretaries, &c.

General Report for 1876 by J. Molloy, Esq., Head Inspector of National Schools. Centre, Galway.

Galway, 3rd March, 1877.

Gentlemen,—The districts in my charge are the same as when I last reported, and comprise the entire counties of Galway and Clare, the greater part of Mayo and Limerick, with portions of Tipperary, Cork, Kerry, Sligo, Roscommon, Westmeath, and King's Counties.

In these ten districts there are about 1,100 schools in operation, of which 9 are Model Schools, 26 are in charge of religious orders, 36 are Poor Law Union schools, and the remainder ordinary town and rural schools.

From the 1st April, 1875, to 28th February, 1877, I travelled on official duty 10,503 miles, at a cost of about 3¾*d.* per mile, and I was from home during the same period 457 nights.

As I have been able to devote only half of the limited time allowed me to the preparation of this report, it must necessarily be brief, and not so well prepared and considered as I should desire.

Generally speaking, the schools in the southern districts of my circuit are more numerously attended and better conducted—being more favourably circumstanced in all respects—than those in the greater part of Mayo, Galway, Sligo, &c. The teachers in the former, as a body, are better qualified for the discharge of their duties, and receive more ample local support. In one district—that whose centre is at Ballina—several of the school-houses are the property of the teachers or are rented by them. This is a most undesirable arrangement, and should, in my judgment, be discouraged as much as possible in future. Many of the teachers still walk long distances to, and from their schools—some, because they cannot get accommodation in the neighbourhood of the schools, but a great many, from choice. I have observed that in the neighbourhood of cities and large towns a considerable number of the surrounding schools have got into the possession of teachers who prefer living in these towns, three or four miles distant.

The consequence is they are seldom punctual in attendance, and should the morning be very wet, don't go to school on that day.

Of course these are exceptions, but, speaking generally, such persons in my experience never evince the same interest in the progress of their pupils, or in the care of the school-house and apparatus, as those who, residing among their pupils and their parents, become, so to speak, "part and parcel of them."

There has been a very marked increase in the amount of school fees returned for 1876 as compared with former years, and under the head of local endowments some returns have been made, calculated by their suddenness or unwonted generosity to arrest attention.

With reference to the proficiency of the pupils, I shall note briefly the several points to which I found it necessary to direct attention.

Reading.—In a former report I ventured to anticipate an improvement in reading, when the children had been accustomed to repeat the poetical selections slowly and with care. In every school where the teachers have enforced such a delivery, the children read with ease and fluency. Indeed, taken as a whole, the per-centage of passes was high, though the quality of the reading was, in too many cases, neither finished nor pleasing. Where the teachers are themselves inexperienced and of moderate acquirements, and also where the junior classes are left principally to monitors and assistants of the character just described,

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the children read in a careless, indistinct manner, as they are not required to make any effort to overcome the difficulties they meet.

Another defect arises from the children in first and second classes being able to repeat several of the lessons from memory. To correct this, and to test the proficiency, my own practice has been to require each child in these classes to read a passage selected in their respective lesson books, but all from different lessons. I may mention here that some teachers, whose opinions are deserving of every consideration from the thoroughly honest, earnest, and energetic ability they bring to the discharge of their duties, have stated they found it very difficult to work the fourth class pupils through the entire of their reading book in twelve months. If a large number of teachers in other circuits have been found to make similar complaints, it might be worth considering whether some of the more difficult lessons could not be omitted by both pupils and examiners. For myself, there are some lessons in that class-book in which I seldom, if ever, test a child.

As a whole, the explanation of the pupils in the subject matter of their lessons is not good. This arises, in some parts of the circuit, from the fact that, Irish is spoken almost universally by the children when not in school. Teachers sometimes say they have not time to exercise the pupils, but it appears to me a large proportion of young teachers and monitors do not aim at acquiring knowledge and facility for this purpose. At the annual examinations the replies given by some teachers when asked to explain passages from the lesson books would be ludicrous if they were not lamentable. I may touch on this point in another part of this report.

Spelling and Dictation.—The per-centage of passes obtained in this branch is generally low, and unsatisfactory. In the junior classes the children are not required to learn the more difficult words, at least it would appear so, from the attempts they make to spell phonetically; and in the advanced classes, mistakes in dictation remain unnoticed by the teachers and uncorrected by the pupils.

Writing.—A considerable improvement is for the most part observable. The teaching of this branch is merely mechanical, and a person who might be unsuccessful in securing satisfactory, or even moderate proficiency in reading, arithmetic, grammar, &c., may succeed in this, if he have only "the will and the way." I have seen schools in which the writing was the merest scribble, become distinguished for neat and finished penmanship, when the teachers made it their business to superintend the exercise and enforce care, and imitation of the "head lines" on the pupils.

The hindrances to satisfactory proficiency are neglect of the first and second classes; want of space and furniture, and badly made desks—insufficient supply of writing materials of good quality, and injudicious selection of copy books.

Arithmetic.—In every school conducted with ordinary care, I have found the proficiency of the first, second, and third classes fair—very fair—or good, in this branch. As a rule a large number of fourth class pupils failed; and also of fifth and sixth classes, though not perhaps to the same extent. This failure, and I paid particular attention to it, may be attributed rather to inattention than to ignorance. Every day I found pupils who started correctly getting wrong in working out details on paper, while others would divide when asked to multiply, or the reverse. The children, as it appears to me, are not sufficiently prepared by frequent exercises on paper, by mental arithmetic, and by a knowledge of the principles of the science,

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Grammar.—Unless by the better class of teachers this branch is unskilfully, not to say carelessly, taught, and as a consequence, the pupils fail to a great extent. An examiner is told readily enough that "an adjective qualifies a noun," and that "a verb implies action," but of the meaning of these expressions the children are totally ignorant. In the fourth class, inflections of nouns, adjectives, &c., are not generally known; and in fifth class, though easy simple sentences are parsed with tolerable accuracy, an explanatory clause, or a verb in the imperative mood, proves a puzzle. Very little is known of the text-book.

Geography.—This is the third branch in which failures are most numerous. In some schools—bad, of course—the merest outlines are attempted, and the children are crammed with the answers to a few set questions; but as for knowing anything of the map—they cannot point out an ocean, sea, or gulf, unless they first observe the name. In another set of schools the acquaintance with the map is tolerable; but of the text-book and more advanced part of geography the children know almost nothing.

Agriculture.—In very few cases have I found an approach to useful knowledge of this subject. A plain, practical question, a little out of the usual routine, always remained unanswered.

Needlework.—This is a branch in which much progress has been made and which is well taught in general.

Vocal Music.—Except in the convent and a very few other schools, there is no successful teaching of this branch.

Drawing.—The preceding remark applies in this case also, but the instruction is more general.

Geometry and Algebra.—In some schools of the better class a few pupils have made fair proficiency, but failures often arose from inattention to the requirements of the programme.

French, Latin, Greek.—In the convent and some other schools, French is taught and with fair success. In a few town and rural schools, Latin and Greek have been introduced. So far as I have been able to observe, not much more than translation is aimed at or attained. On the last occasion I examined, though passages from the "Cataline or Jurgurthan War" were translated with tolerable accuracy, the pupils exhibited little or no knowledge of "accidence."

From the preceding remarks it will be apparent there are considerable failures, and the question arises, to what are they to be attributed? In my judgment the irregular and unpunctual attendance of the pupils is the main cause. The examination rolls for the generality of schools in which failures most abound, show that a large number of the children make from 90 to 120 or 130 attendances in the year; giving an average of about one-half the days the school was open for secular instruction; and thus showing that one-half the year has been lost to them. Again, on the days when they do attend, a fourth of the time is lost, as a vast majority will not be present till close on eleven o'clock or after.

The remedy for irregular and unpunctual attendance, in my opinion, rests mainly with the teachers. During a lengthened experience I have met some of the best and some of the worst teachers in the service. I have seldom known one of the former who had not his special classes for instruction before ten and after three o'clock; and, as a consequence, an officer of the Board, even when unexpected, could begin his inspection at ten o'clock, as, with a very few exceptions, all the pupils would be assembled at that hour. These schools were remarkable not only for the punctuality but for the regularity of the attendance, as the teachers invariably made it their business to ascertain the cause of absence on the part of the pupils. These are my experiences north, south, east, and

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west in Ireland; and I have no doubt, if all our teachers were influenced by such zealous and conscientious motives, they could attain similar results.

I also look to the enforcing of local aid, whether by school fees or by endowments, as a powerful corrective to the abuse I am discussing. Whenever parents have to pay for the education of their children, so far as I know, they desire, and must have full value for their money. Hence I have always advocated in every school, town and rural, a liberal scale of fees. Within the last few days a corroboration of this view came under my notice. All the children attending a certain school were required to pay fees, and all absent at roll-call were excluded for the day. The clock was correct. It so chanced the day before my visit a child absent at roll-call was excluded, and the father was up the following morning to inquire the cause, as the child had been sent from home in proper time.

Examination of Teachers.—At the annual examination of teachers about an equal number of candidates for promotion presented themselves in 1875 and 1876—102 in all—of whom only 22·7 per cent. were promoted, and 77·3 were left stationary. The fact is, no suitable preparation is made by a large number of teachers, and hence it is not unusual to find candidates for first class and even for first division of that class, failing in two, three, or more subjects.

In the case of candidates for classification and second class monitors of final year, I regret to say, several, if not dismissed as wholly incompetent, are retained "provisionally classed"—which is only a name for tolerating incompetency for another year. A great many of those who do succeed in obtaining classification display a very limited knowledge of method, the spelling-book, grammar, the principles of arithmetic, &c. It appears to me we are not benefiting as much by the pupil and monitorial candidates as we should. The best of both (I speak now of the the male sex) try to make their way to another branch of the Civil Service. It sometimes happens that monitors must be appointed in consequence of the large attendance under teachers not very able and perhaps not very willing, if able, to instruct them.

Several of the girls trained in good schools, and who are well qualified to enter on their career as teachers are not unfrequently passed over by managers who give a preference to less competent or to unskilled candidates, but commanding some local influence.

In concluding this portion of my report, I am disposed to recommend that no gratuity should be given to the teacher where the monitor fails to answer in method and school organization, and that a teacher who neglects to teach and train his monitor should, under no circumstances, get a successor.

With reference to the three model schools in my charge—Parsonstown, Limerick, and Galway—I have to report that the buildings, premises, &c., are in good order and well kept.

A very active and persistent effort to prevent Roman Catholic children from attending has been kept up for the last two years. This has not been so successful as yet at Parsonstown, as the new school to be conducted by the Christian Brothers is not completed.

Parsonstown.

The following table gives the average numbers attending each department during the past three years:—

	1874.	1875.	1876.
Boys,	51·3	54·3	62·9
Girls,	43·2	39·9	42·
Infants,	35·5	37·7	33·4
Total,	130·5	131·9	138·3

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The children are punctual in their morning attendance; but the district Inspector says the lessons given before ten o'clock are not so well attended as they should be, and that pupils walking long distances from the country are more regular and earlier than those from the town or immediate neighbourhood. As a rule, "home lessons" are fairly prepared; the girls, however, exhibit more diligence than the boys in this respect.

The amount of school fees paid by each pupil shows an increase over the returns for 1874, but this is mainly due to the operation of the new scale in 1875–6—

	1874.	1875.	1876.
	s. d.	*s. d.*	*s. d.*
Boys, per pupil,	14 2	15 10¾	17 4¾
Girls, „	13 2¾	14 9¾	15 4¼
Infants, „	13 2½	12 4½	16 5½

The following summaries will show the number examined and passed at the results examination last December in the girls' and infant departments. I have not got the returns for the boys—

	Girls' Department.		Infant Department.	
	Examined.	Passed.	Examined.	Passed.
Reading,	42	41	37	36
Spelling,	42	37	19	18
Writing,	42	36	19	19
Arithmetic,	42	31	19	15
Grammar,	36	31	–	–
Geography,	36	31	–	–
Needlework,	41	41	2	2
Drawing,	30	30	–	–

The principal obstacles to the efficient working of the schools during the last two years were the fitful and irregular attendance of the Roman Catholic pupils, from causes noticed before, and the very frequent changes in the teaching staff. This was most felt in the boys' department, where at times the staff was wholly insufficient—at one period without principal or assistant—and the inefficiency of some assistants during a portion of the time.

The junior staff at present in the schools are giving much satisfaction; but with reference to those who left last year, though they attended to their school duties, they were by no means so diligent and anxious for their own improvement as they should be; hence at their final examination their answering was only middling. However, they had all materials for becoming clever, intelligent instructors of youth, and with more application, I have no doubt they will prove themselves to be so.

The principal teachers at present in charge promise well, and appear anxious to improve their respective departments.

Limerick Model School.

The average attendance for the years 1875 and 1876, respectively, were—

	1875.	1876.
Boys,	78·	66·
Girls,	60·6	63·2
Infants,	51·	54·
Total,	189·6	183·2

Since 1873 there has been a steady decrease in the male department. In that year the average was 102; in 1874 the average fell to 93, in 1875 to 78, and in 1876 to 66. This decrease is attributed principally

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to the re-opening of "Leamy's School," under a former assistant at this model school, a most efficient, excellent teacher; a general favourite with the pupils and their parents, and deservedly so. A large number of Roman Catholic boys are attending his school. Besides the Roman Catholic clergy are very vigilant in preventing the children of their flocks from attending.

The average amount of fees paid per pupil in average attendance is shown in the following table:—

	1875.	1876.
	s. d.	*s. d.*
Boys,	20 11	22 4
Girls,	17 0	20 10
Infants,	19 2	23 5

The following table shows the number examined and passed in the several departments at the results examination in June, 1876:—

	Male Department.		Female Department.		Infant Department.	
	Examined.	Passed.	Examined.	Passed.	Examined.	Passed.
Reading,	54	52	57	56	51	50
Spelling,	54	44	57	45	21	21
Writing,	54	50	57	51	21	21
Arithmetic,	54	47	57	30	21	20
Grammar,	45	33	50	30	–	–
Geography,	45	32	50	37	–	–
Book-keeping,	36	32	–	–	–	–
Needlework,	–	–	57	32	5	5
Drawing,	27	19	–	35	–	–

Three boys passed in French and Latin, 10 in geometry, 6 in algebra, and 11 in botany. Two girls passed in French and 9 in "sewing machine." The results noted for the female department are not so satisfactory, but the defect arose most probably from the want of an assistant for nearly four months.

The conduct of the pupil teachers and paid monitors during the year was satisfactory—no breaches of discipline or inattention to duty being reported.

Though I have not been furnished with returns as to the destination of the pupil teachers who left during the last two years, I am, I believe, correct in stating that most, if not all, are engaged in National or non-National schools; and, so far as I could learn from time to time, are giving satisfaction.

Galway Model School.

The average attendance for the last three years at the several departments was—

	1874.	1875.	1876.
Boys,	52·	43·	43·
Girls,	34·	35·	32·
Infants,	29·7	30·9	29·6
Total,	115·7	108·9	104·6

The opposition of the Roman Catholic clergy continues, and is so effective as to prevent children of that denomination attending, except a very small number.

There are also two free schools in the neighbourhood mainly patronized and managed by the Protestant clergy, and at which the poorer classes of their flocks as a rule attend.

Erasmus Smith's Grammar School, re-opened under a most efficient principal and staff, has deprived the boys' school of many of the advanced and most promising pupils—those possessing the required proficiency, and whose parents are of limited means, being admitted free.

The girls' school was left without the services of an assistant for a considerable part of 1874 and for the first six months of 1875, and the prevalence of diseases of various kinds reduced the attendance and is still affecting the schools. *Appendix A.* Head Inspectors' General Reports. *Mr. John Molloy.*

The next table shows the average amount of school fees paid per pupil in average attendance—

	1874.	1875.	1876.
	s. d.	s. d.	s. d.
Boys,	17 1¼	21 7¾	20 11
Girls,	15 11	21 0¾	19 8
Infants,	18 0	24 9	25 0

The new scale introduced in the two last years, as in the other model schools, accounting for the increase.

Table showing the result of annual examination in July, 1876—

	Boys.		Girls.		Infants.	
	Examined.	Passed.	Examined.	Passed.	Examined.	Passed.
Reading,	40	36	31	31	30	30
Spelling,	40	32	31	26	20	19
Writing,	40	38	31	31	20	20
Arithmetic,	49	28	31	14	20	17
Grammar,	35	26	28	21	–	–
Geography,	35	19	28	16	–	–
Agriculture,	25	11	–	–	–	–
Needlework,	–	–	31	23	5	5
Drawing,	–	30	–	24	–	–
Vocal Music,	–	–	–	–	13	13

In the male department 5 passed in geometry, 7 in algebra, 10 in botany, 10 in heat and steam engine; 7 others—3 pupils and 4 pupil-teachers—were examined in this subject (heat, &c.), 5 of whom obtained "passes."

During 1875–6 four pupil-teachers left, one of whom obtained a Civil Service appointment by competition; one went to the training establishment; and two returned to their respective homes. Two who had been monitors in the male department are at present pupil-teachers in other model schools. Of the three monitresses who left, one was trained and is now teaching a National school, and two resigned.

The conduct of the junior staff has been satisfactory.

I have to acknowledge, in concluding this report, the most cordial co-operation on the part of the District Inspectors of the circuit at the annual examinations, and on every occasion I was obliged to trouble them.

I remain, gentlemen, your obedient servant,

JOHN MOLLOY, Head Inspector.

The Secretaries.

GENERAL REPORT for 1876, of W. BOLE, Esq., A.M., District 2. Centre, Londonderry. District Inspectors General Reports.

Londonderry, 9th March, 1877.

Mr. W. Bole.

GENTLEMEN,—In compliance with the instructions conveyed in your letter of the 8th ult., I beg to submit my general report for the year 1876.

The number of schools in my district remains as nearly as possible unaltered during the year, the only change being that one female school was amalgamated with the adjoining male school, both being now conducted as one school, with the teacher of the female department as

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assistant, so that now instead of two schools, each struggling to keep up an average attendance, there is one vigorous and successful school. Two schools, which had been suspended for a great many years, were struck off the roll of National schools, the lease having expired. There are still too many small schools, many of them doing very little good, but serving to fritter away a good deal of the education grant. They are gradually disappearing, however, and most of them will in course of a few years drop off, without any appreciable loss to the cause of education. The number of schools in the district is 134, of which 3 are suspended schools, and 2 are building cases in which grants have been made for the erection of vested school-houses. This may be regarded as nearly the maximum number of schools required to supply the educational wants of the district. There are now few localities in it requiring additional school accommodation, and there are not many schools unconnected with the Board which are likely to become National. The additions which may be made to the existing number of National schools will be about counterbalanced by the removal of some of the small schools now on the list, which will not be able to exist much longer. The change thus gradually taking place will be always in the way of improvement.

I regret to have to report that there are still a good many very indifferent school-houses, some of which are barely tolerable. These are situated in poor localities, where for the present no better can be had; they are retained because their removal would entail a very serious loss in places where education is much required, and it is generally the case that in such schools, with all their disadvantages, very fair work is done. However, it is gratifying to be able to add that in the matter of school-houses a gradual, though slow, improvement is taking place. No year passes without the removal of some of the worst, and the erection in their stead of some of the best school-houses in the district. Just at present two of the very worst are being replaced, one by a vested school and the other by an excellent school-house with teacher's residence attached, built at the expense of Colonel Stotherd for the benefit of his tenantry. I cannot here omit reference to the beautiful and commodious school-house lately erected at Waterside, Derry, through the exertions of the Very Rev. Dr. Devlin, at an expense of about £1,000, to meet the growing educational wants of that populous locality, and which he proposes to render still more complete by the addition of a class-room for the very flourishing boys' school, and of an infant school to relieve the pressure of attendance at the other two departments.

I was able to complete the examination of all the schools in my district, only one being examined by the Head Inspector—the teacher, Mr. Johnston, of Muff National school, having been recommended by me for the Carlisle and Blake premium. I also examined 22 schools outside my own district, and spent two days assisting in the examination of the Enniskillen Convent school, and a week assisting in the examination of the Enniskillen Model school. In the performance of this duty I travelled 3,568 miles. The number of pupils examined by me in 126 schools in my own district (two schools having been inoperative at the time fixed for examination, and therefore not examined) was 6,069, and the average attendance of pupils at the same schools was 5,944. This gives an average attendance of 47·4 per school, and shows a steady increase when compared with the numbers returned in previous reports. This increase is also shown in the addition of six new assistant teachers during the year, whereas only one of those already recognised was withdrawn owing to defective attendance. Both the average attendance and the number

examined would have been considerably larger, but for the prevalence of epidemics during a great part of the year. The number eligible for examination, as having attended 90 days, was 6,466, so that it appears there were of these 397 absent on the days of examination. Most of these absences were fairly accounted for by illness, removal to another locality, or some other satisfactory cause. I believe a small proportion failed to appear in consequence of teacher and pupil being convinced that they would not pass in any subject, such cases occurring chiefly in first class. There are not many instances of absence from indifference or from ill-will to the teacher. On the contrary there appears to be in most cases an earnest desire to be present at the examination, and the pupils show a great interest in the success or failure of themselves and their class-fellows. I also find that in a large number of cases pupils attend specially for some time previous to the close of the results period, so as to complete the number of attendances required to qualify them for examination. I am sure this will continue to be the case now that the required number of days is raised from 90 to 100, and it will be found as the result of this increase, that as many, or very nearly as many, pupils will make 100 attendances in the year as have hitherto attended for 90 days. The loss to teachers of those who will henceforth fail to make 100 attendances will in most cases be not very serious, as it is becoming clear that in any shorter period it is almost impossible for a pupil to make such proficiency as will enable him to pass in a higher class. The fact that such attendance of the pupil is required to qualify for examination, and that those who have not so qualified do not appear in their classes, when their schoolfellows, who have attended with due regularity, are mustered for the important ordeal of appearing before the Inspector, generally produces a salutary impression on the minds of the children themselves, the occasion being in many cases taken advantage of by the teachers to drop a pointed remark on the subject, and this impression is often deepened, and the absence made to appear a real loss in the eyes of both parents and children by the latter failing to obtain that advancement in classification which was conferred on their more fortunate fellows as the result and reward of successfully passing the examination.

It appears from the figures given above, that the number of pupils actually examined for results is somewhat in excess, and the number eligible for such examination is considerably in excess, of the average attendance. When the attendance is fairly regular, there is generally a number considerably greater than the average attendance found qualified for examination. But the case is far otherwise in backward and irregularly attended schools. There is a great difference in this respect between the schools of this district which are situated on the Londonderry side of Lough Foyle, and most of those in the interior and remote parts of the peninsula of Inishowen, lying between Lough Foyle and Lough Swilly. On the Londonderry side, there is a prosperous farming population, and there are excellent schools, a large number of which have the advantage of local contributions from landlords, or liberal endowments from the Irish Society, or from the London Companies on whose estates they are situated. On the Donegal side the farms are small, agriculture is in a backward state, and the population poor and struggling for existence; many of the school-houses are of an inferior class, and in most cases the teachers are left to work on without anyone, except perhaps the manager, showing any interest in the welfare of the schools. As might be excepted under such circumstances the attendance is irregular, the parents, themselves illiterate, are careless as to the instruction of their children, and anything like a popular interest in

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education does not exist. Those who are not acquainted with the actual state of matters in such localities can have but little conception of how irregular and fluctuating the attendance really is. Many schools so situated are quite overcrowded for about three months in winter, so that the teachers can produce very little impression on the numbers they have to deal with, while for the remainder of the year, they are deserted by most of those pupils, and attended only by a few young children who are of no use at home or in the fields, the great bulk of those who had swelled the attendance in winter being in the meantime in employment, hired as domestic or farm servants. In one school examined by me very lately, of 87 pupils on rolls at the end of the month preceding examination, only 15 had attended 90 days in the year; in another, of 140 pupils on rolls, only 29 were so qualified for examination; and in 8 or 10 other schools the corresponding figures show an attendance very little better. It is obvious that with an attendance of this kind very little educational progress can be made, and also that very little can be earned by the teachers in the way of results. Irregularity of attendance has always been very truly put forward as one of the most formidable obstacles with which our schools have to contend. Some improvement is taking place in this respect, but it has not begun to operate in the localities where it is most required.

Of the teachers I feel bound to speak in terms of high commendation. They are earnest and faithful, and, in the face of many difficulties and drawbacks, are on the whole successful in the discharge of their duties. I often derive much satisfaction from the estimation in which I find them held in the localities where they labour, and from the terms of regard and esteem in which I hear them spoken of by managers and others interested in their work. They generally manifest the utmost willingness to carry out the Board's regulations, and to adopt any suggestions for the improvement of their schools. As a body they are improving, and I am glad to say that their circumstances have improved considerably during the past few years. A much better class of young teachers is now available when vacancies occur, than could have been found some years ago, and the position of teacher is evidently more attractive than it was to young men of ability and acquirements. The school accounts are usually kept with care and faithfulness, and cases of falsification have become rare. It is a matter of regret that so many of the teachers are deprived of the benefits of training either in the district model schools or in the central training establishment. This state of things must be regarded as a serious drawback to the progress of education. Managers are anxious to remedy this defect as far as possible by the employment of monitors, so as to have a number of young persons in course of training in their own schools for the office of teacher. I have at present 63 paid monitors employed in the district, and this number will be considerably increased in the course of the present year. The teachers in most cases do their duty faithfully in the training of these young persons, most of whom turn out well, and show that they have benefited by the apprenticeship. But, after all, this is but a preliminary training, which to attain its full development should be followed up by an additional period in a model school or in the training department.

It is of importance that any well-founded cause of discontent or dissatisfaction on the part of the teachers should be removed, and that they should be able to count with certainty on such a remuneration as would afford them a comfortable livelihood, in return for work performed honestly and well. There is well-founded discontent at the

precarious nature of an important portion of their income, two-thirds of the results fees depending, as it now does, on the votes of the Poor Law Guardians in the several localities. In this district all the unions are at present contributory, but for the year before last, the union of Limavady was non-contributory, and a number of most successful teachers lost heavily thereby. Of course teachers in non-contributory unions must feel it a hardship to be paid so differently from others from the mere circumstance of location, and those in contributory unions are also dissatisfied because they do not know but that next year they may find themselves placed in a similarly disadvantageous position by an adverse vote of the Guardians. I think it is clear that additional legislation on this subject is urgently needed, and that if the present system of local taxation in aid of results fees is to be continued, it should be made uniform in its action, and not left in the present unsatisfactory state. I believe that in my own district not a single union would remain contributory for more than a year or two longer, and I think this would likely be the case in most parts of the country.

The average annual income of male principal teachers of ordinary National schools in this district is £67 5*s.* 2*d.*, and of female principal teachers of ordinary schools, £55 8*s.* 2*d.* The highest income returned by any male teacher for last year from an ordinary school, is £159 17*s.* 10*d.*, and the highest among female teachers £132 13*s.* 3*d.* Nine male and two female teachers have incomes from their schools over £100 a year each. There are eight cases in which the wife of the male teacher is either mistress of the female school adjoining or assistant to her husband, and in a good many instances the monitor is a member of teacher's family. Twenty-seven schools are provided with residences rent free for the teachers. Only three applications have as yet been made for grants to provide teachers' residences from the funds voted by Parliament. In all these cases I have reported favourably on the applications, but they have not yet been finally dealt with. The total amount paid in results fees for a year in the district, calculating for each school the last available return, is £2,663 13*s.* 6*d.* The highest amount for an ordinary school is £65 2*s.* 3*d.*—the total results fees in Waterside Male School, with one assistant. The teacher of this school, Mr. James Mullan, always occupied a high place, as well before the introduction of the results system as in the position occupied by his school in the list each year since the introduction of that system. The highest sum earned in any school without an assistant is £45 10*s.* 6*d.*, the amount of the results fees in the Faughanvale Female School, the teacher of which, Miss Johnston, was awarded a Carlisle and Blake premium for 1874. The amount of school fees for the district is £1,136 12*s.* 6*d.* This sum is in many cases quite disproportioned to the income derived from the public funds. In one school the total amount of school fees is 1*s.* 6*d.*, set over against £52 0*s.* 6*d.*, accruing from Board's salary and results fees. This school is not in an exceptionally poor locality, and it is conducted by an active and successful teacher, who has improved it very much, but who has not made up his mind to exact payment from the parents. Cases like this show that some pressure is required to secure a fair amount from the locality to meet the payment furnished from the public grant. Fifty-seven schools have local contributions amounting to £585, and varying from £1 to £30.

I now proceed to make some general remarks on the state of instruction in the various subjects. With respect to reading, which occupies the foremost place, I am unable to speak in as favourable terms as I

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could wish. It is true that the mechanical art of reading is generally well or fairly taught, and that the pupils can, in most schools, get through the lessons with considerable fluency and accuracy. But here the language of commendation must cease. I regret to say that there is usually found to be a total absence of thorough understanding of the subject-matter of the lesson. The meaning of the words given in columns at the head of the lessons is very fairly mastered, but in the explanation of phrases or short combinations of words, there is generally a complete failure. Questions involving thought regarding the meaning of the passage read, or in which the language of the book is deviated from, fail to elicit satisfactory answers; and even the knowledge of the bare facts which many of the lessons are intended to teach is sadly defective. And very often, when there does appear to be some proficiency in this respect, the answering is found to come from one, or perhaps two, pupils in a large class, showing that it is the result of natural quickness or home training, rather than of the instruction given in the school. More time should, in most schools, be devoted to reading, so that a due amount of attention could be given to the subject-matter of the lessons. There is no point which requires to be more earnestly pressed on the attention of teachers than this, and I have no hesitation in expressing my conviction that the intelligence which would be thus developed in their pupils would tell with great effect on the general results of examination in the schools. The power of thought awakened in the children would render them capable of profiting, to an increased extent, by the instruction given in every subject; and the answering in grammar, geography, and arithmetic, as well as on the reading lessons, might be expected to be improved by such careful training. In any case, teachers should bear in mind that mere mechanical reading, without a thorough perception of the full meaning intended to be conveyed, is of comparatively little value. The reading in first class is generally too monotonous, and might be much improved by a proper grouping of the words. Such improvement would beneficially affect the reading of the pupil throughout his entire course. The infant class is usually well prepared, and none appear to enjoy the examination more thoroughly than these little folks. It is of importance that at this stage they should have a fair start, and I am always glad to meet with pupils presented as infants who could pass in reading and spelling as first class pupils, while I cannot but regret to see efforts to pass pupils under seven years of age in first class, where an effort is required to do so, feeling assured that an increasing strain will be imposed on the child's faculties at each succeeding stage of his school course.

Oral spelling of words and phrases is generally excellent in first class, good in second and third, and very fair in fourth. I find both stages of fifth class deficient in the spelling of difficult words selected from their lesson book. A vocabulary of such words, with the meanings attached, would form a valuable addition to the Fifth Book.

In writing great improvement has been effected during the past few years. The penmanship is generally neatly and carefully executed, and free from blots; and whereas for several years after the use of copy-books with head-lines became general, it was matter of constant complaint that numbers of the pupils were writing on books not at all adapted to their progress and requirements, it is now very rare to find this defect in existence. The introduction of a transcription exercise as the test in penmanship, indicates a considerable advance in this art. To pupils even of second and third classes, I invariably give a slip of paper for this exercise, and I am much pleased with the steady improvement in the style in which it is executed. The first class pupils also show a great

advancement in the writing on slates, as compared with the proficiency of a few years ago. Young teachers in general require to pay increased attention to the observance in the junior classes of the lines ruled in the copy-books to regulate the size of the letters. And the attention of all teachers should be directed towards the importance of vigilance in discovering and marking errors in spelling, where such occur in the copy-books of the pupils. Especially in the exercise books I am constantly finding misspelled words not marked, and I believe that this neglect does much to perpetuate bad spelling. All such errors should be not merely pointed out, but distinctly marked, and the pupil should be required to write out correctly, several times, if necessary, all words so marked.

On writing from dictation I have nothing of importance to remark, as I do not observe either marked improvement or failure. This subject always occupied a large share of attention in the National Schools, and was generally successfully taught, and this is still the case.

Arithmetic is the subject which probably of all others requires the largest amount of pains in the preparation of the pupil, and in which the results of examination often produce the greatest disappointment. I am still of the opinion which I expressed in former reports, that the absence of careful grounding in the elementary tables has much to do with the failures in this branch. In the lower classes I still find it necessary to give each pupil a separate sum, so as to avoid the possibility of copying. In the higher classes the examination cards in this subject are still somewhat puzzling to the pupils. There has been considerable activity shown by several publishers in the preparation of arithmetical cards similar in form and construction to those used by the Inspectors. These cards are useful in preparing the pupils for examination, and I find them in very general use, but still the results of examination in this subject are usually very disappointing to the teachers. The mistakes are often of the simplest character. The pupil, for instance, in subtraction will place the smaller number in the upper line, and find a remainder, or when asked to find the product of two numbers will divide the one by the other, or in reduction will employ multiplication where division is the process required, and *vice versâ*. I often regret that teachers have not the opportunity of seeing the exercises of their pupils when marked, that they might know the nature of the failures, at which they often express much surprise. The case is very much similar to that of reading; the instruction is too mechanical, and runs as it were in a certain groove, and when the pupils have arithmetical questions placed before them in a form different from that to which they have been accustomed, or when any exercise of thought is involved, they are found wanting. I believe, however, that a careful consideration of the failures in this branch and of their causes, will do much towards working a remedy, and that better results may be expected in future years.

In grammar I consider the proficiency attained by pupils in third class, with rare exceptions, worthless, and that in fourth class of no great value. I have already recorded my opinion that the time spent in third class on this subject is virtually lost. This time might with great advantage be devoted to reading, with corresponding improvement in that branch, which requires it. Many pupils have to leave school soon after they have completed the Third Book. To them the time spent in learning to distinguish the parts of speech, even if they have attained moderate proficiency, which is rare, has been of no real educational value, while those who remain at school for a longer period, would have acquired as much knowledge of grammar when they came to be examined in fourth

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class, if they had never been introduced to the subject until they entered that class, as they do under the present provisions of the programme. In fifth and sixth classes a really useful knowledge of grammar is commonly found. The pupils in fifth class can execute a parsing exercise fairly on paper, the passage being about two lines of prose from Fifth Book, and the sixth class pupils as a general rule parse creditably a passage selected from the poetical extracts in Sixth Book, the exercise filling a page of foolscap paper. In both classes each pupil receives a separate passage to parse, so that copying cannot take place. The skill of sixth class in composition, as tested by a letter written on some subject suggested by Inspector, is moderate.

I do not observe much change in the manner in which geography is taught. With the facilities afforded by the large maps and excellent text-books now available, it is a matter of disappointment that the proficiency attained is so meagre. There is need of much more thorough preparation of home lessons in this subject, and indeed in general the memory work in our schools might be cultivated with much more success than it is at present.

In schools in which needlework is taught, this branch continues to receive due attention, and the skill attained is very satisfactory. Failures in needlework are very rare.

Agriculture is not in general successfully taught. This subject has never become popular with teachers, pupils, or parents. I think it should be regarded as an extra branch. I would also be glad to see bookkeeping placed among the extra subjects and confined to town schools. I sometimes find that time has been completely wasted on this subject in remote rural schools, where it is certainly out of place.

Instruction in vocal music and in drawing is reasonably successful. I require every pupil presented for examination in drawing to execute a specimen on paper from a copy selected by myself, and I decide the pass on that specimen. This course has caused drawing to be dropped in several schools in which it was tried with a view simply to the results fee, and without any successful instruction being shown, but still in a good number of schools this subject is very fairly taught. In the scientific branches not much success has been attained. Much time is wasted in straining after passes in these subjects. I have sometimes to spend a good deal of valuable time in examining classes on such extra branches, where not one, or hardly one, can pass, and of course a corresponding portion of time has been spent in teaching them; while of the passes actually gained, a large portion is forfeited in consequence of failure in some of the essential subjects, on which the time of the teachers and pupils would have been more profitably spent.

The past few years have been to all connected with National Education in this country interesting in connexion with the introduction of the system of results examinations. A great change has taken place, and it is important to know as accurately as possible how it has worked. I was always of opinion that the new system must be tried for four or five years before its working could be correctly judged. A fair period has now elapsed and there are grounds on which to form a tolerably accurate judgment. The change was at first opposed by the teachers almost unanimously. Now it is looked on with more favour by a good many of the most earnest and successful of the teaching body. The greater part of the old teachers, who had become habituated to the former system, will probably never fall in heartily with the new one. But the new teachers who have entered on their career within the past few years, and those who will be hereafter appointed, will, from

the mere absence of prejudice, set themselves with more cordiality to work under the existing regulations. The opinion of the managers, so far as I can judge, is in favour of the results system. I believe the portion of the general public which is interested in education to be largely of the same opinion. My own judgment is entirely favourable to it, and increased experience of its working strengthens this view. So long as the class salaries remain fixed it is unreasonable that a teacher, who can show a large amount of educational work, should not be able to earn for that work a larger amount than another of the same class who is doing much less. The new system has awakened an amount of activity and energy in the teaching staff generally, much greater than was known before. Schools conducted by really good teachers are probably not improved by it, and they did not require any such incentive to exertion, but now they are paid for the excellence of their work, and a much needed stimulus has been applied to the laggard and inactive. The number of days on which school is open for general instruction has been increased to the extent of about ten days per school on an average for the year over the district. There has likewise been a good deal of activity shown in the preparation of neat and convenient school-books suited to the results system, several of which are finding their way into pretty common use. I have been able, though not without considerable trouble, to arrange the period of examination for all schools under my charge so as to give satisfaction to all concerned, and I am not aware of a single case in which any disposition was shown to complain of the month of examination. This is a matter of considerable importance, and it is worth while for an Inspector to sacrifice to some extent his own personal convenience in order to secure contentment among the teachers. The arrangements for examination have been uniformly carried out without the slightest disappointment or hitch of any kind. I feel pleasure in referring to the general acquiescence of the teachers in the results of the examinations. It might be expected that cases would arise in which the judgment of the Inspector would be called in question, but I have never known in a single instance a disposition to dispute directly or indirectly the accuracy of the mark assigned. I have also to express my thanks to the managers for their cordial co-operation in all matters affecting the well-being of the schools, for their disposition, so far as in their power, to apply remedies where required, and for the good nature with which my suggestions and decisions have uniformly been received. I have been four years and a half in charge of this district, and during that period nothing approaching to a misunderstanding with a manager has occurred. Such relations add greatly both to the comfort and success with which an Inspector can discharge his duties.

It will be seen from the details which I have furnished in this report that the prospects of education in this district are, on the whole, encouraging. I have little to add in the way of suggestion to what I have embodied in the report. Anything which will improve the position of the teachers will be sure to improve the general condition of the schools, and better salaries will always procure better teachers. Something should be done to check the irregularity of attendance, in respect to which improvement will be slow, if matters are left as they are. I am of opinion that the time has come when attendance for at least 100 days in the year should be enforced in the case of all children of a prescribed age, until they are qualified on such a standard of instruction as may be judged necessary. No hardship would be entailed by such a measure, and great good would be accomplished by it. It would also be of importance that Inspectors should have more time at their disposal for secondary reports

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and incidental visits. With the present inspection staff the results examinations may be fully carried out, but there is not time to devote to the ordinary supervision of the schools to the extent required. Such supervision has always been most beneficial, not only as affording a check on the accuracy of the returns of attendance and the regularity with which the school business is carried on, but as furnishing a valuable opportunity for suggestions to teachers. Most of the teachers prize such visits very highly, and it is only where there is something wrong that the Inspector is not received with a cordial welcome on such occasions. I hope it will be found expedient to relieve by assistance of some kind, the extreme pressure of work which affects the District Inspectors so seriously at present, and to afford them the opportunity of making their influence more effective in the promotion of the work of education in their respective districts.

I am, gentlemen, your obedient servant,

WILLIAM BOLE, District Inspector.

The Secretaries, Education Office.

Mr. M. Sullivan.

GENERAL REPORT for 1876 by M. SULLIVAN, Esq., District 5. Centre, Donegal.

Donegal, 2nd March, 1877.

GENTLEMEN,—In accordance with your instructions, I have the honour to submit, for the information of the Commissioners, my report for the year ended 28th February, 1877.

My district includes the southern portion of Donegal, a small part of Fermanagh lying north of Lough Erne, and a very small portion of Leitrim. Much of it is mountainous. The people, who in general seem poor, are chiefly employed in rearing cattle and in agriculture. The towns are small, Ballyshannon, Donegal, and Bundoran being the most populous.

In the district there are in actual operation 126 ordinary and 3 workhouse schools. Four or five additional schools are required in remote portions of the district; but taking the district as a whole, the schools now in connexion with the National Board are sufficient for the accommodation of the school-going population. There are a few schools not in connexion with the National Board, but practically the education received by the rising generation in this locality is obtained in the National schools.

My last general report was written two years ago. Since that date 4 new schools have been taken into connexion; 1 school which had been closed for a considerable period was re-opened in 1876; and a school which was in operation and examined for results in 1874 and 1875 was closed in 1876. (The schools in one parish were transferred to another district, but in the following remarks I make no reference to these schools.)

Comparing the district as it now stands with the same area in 1874 and 1875, I find the following numbers:—

(*a.*) Ordinary Schools examined for results during year ended	28th Feb., 1875,	121
" "	29th Feb., 1876,	121
" "	28th Feb., 1877,	125
(*b.*) Pupils presented for Examination in	1874–5,	5,970
"	1875–6,	5,918
"	1876–7,	5,370
(*c.*) Average Attendance,	1874–5,	5,000
"	1875–6,	5,126
"	1876–7,	5,019

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The figures in table (*b*) show that, though the schools of the district had increased by 4, yet in the year which has just closed the number presented for examination was 600 less—fully 10 per cent.—than the number presented during the year ended 28th February, 1875. This serious falling off was altogether owing to the prevalence of various diseases—scarlatina and measles in particular—during a considerable portion of 1876. The attendance in some localities was also much reduced during the latter half of 1875, and consequently the year 1875–6 shows a slight falling off when compared with the preceding year. The effect of these epidemics will be more evident from the following examples:—

A school which presented 46 in 1874 and 61 in 1875, had only 27 for examination in 1876; another which presented 128 in 1874 and 149 in 1875 was cut down to 41 in 1876; and a very good school which had 116 for examination in 1874 and 93 in 1875 was so reduced by fever that only 3 pupils were presented for examination in 1876.

Table (*c*) shows that the average attendance was not affected to the same extent by the epidemics referred to as was the number presented for examination. Many of the schools were closed for periods more or less prolonged, and the effect of this would appear in a reduced number of "school days," and not in a reduced average attendance. In 1874–5 the average attendance of the schools in this district was exactly 5,000; in the following year it increased to 5,126; and in the year which has just closed it fell back to 5,019.

I am happy to be able to state that, as far as attendance is concerned, the year 1877–8 opens with brighter prospects, and will, I believe, show a large increase over the year 1876–7.

The 3 workhouse schools in the district are small. At the results examinations for 1876 the 3 schools had 57 pupils for examination; in 1875 they had 76; and in 1874, 78 pupils. One is a good school, the other two are improving.

Most of the schools in the district are in non-contributory unions. The regulation allowing schools in non-contributory unions to claim a second moiety of results fees, provided the local aid reach a certain amount, has directed the attention of managers and teachers to the desirableness of charging school fees. Heretofore most of the pupils who attended the National schools paid no fees, but in future this will not be the case. I believe that if managers and teachers insist on the payment of a small weekly fee, the attendance, although it may fall off for a short time, will eventually become larger and more regular than it is at present.

Teachers.—Three teachers died, and 2 female teachers, who married, resigned. This has been the total permanent loss of classed teachers belonging to the district since 31st March, 1876. There were a few removals from one school in the district to another, and 2 teachers went to other districts. On the other hand, 12 new teachers (7 principals and 5 assistants) have been recognised. Of the 12, *one* had previously served as pupil-teacher in a model school, 7 had completed their terms of service as monitors, and 4 had been pupils in National schools. Two-thirds, therefore, of the new teachers had received a fair preparation for their present occupation. These figures also show the importance of the monitorial staff. The regulation which permits the classification of second class monitors at the close of their term of service has done much to popularize the monitorial system, and to secure the appointment of monitors to the vacancies which occur.

I have much pleasure in testifying to the general good conduct of the

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teachers in this district since the date of my last report. I am satisfied that, as a body, the teachers are now working more energetically than they did before the introduction of the results system. This appears in many ways. For instance, many teachers have voluntarily shortened their vacations. When the rule was made that under no circumstances should Saturday attendances be included among the 90 then necessary to qualify for results fees, several teachers had commenced to give four hours' instruction on that day. I confess I read the rule excluding Saturday attendances with great regret. In this district, as in all rural districts, the attendance is good during summer and winter, and very low during spring and autumn. During one half the year the pupils cannot attend, whereas during the remaining half of the year they have little or nothing to do except to go to school. It is evident that it would be a great boon to the pupils if, during the period at which they can attend, the schools were in operation six days of the week instead of five, as at present. This would add twenty-six Saturdays to the days on which the pupils could attend, and as many teachers complain that pupils now find it difficult to attend 100 days, the gain to teachers themselves would be considerable. It may be urged that Saturday is required for religious instruction, but, practically, religious instruction is given on the other week days, and not on Saturday. Of course, too, any manager wishing to reserve Saturday for religious instruction exclusively, can do so. I merely suggest that when a teacher, with manager's sanction, chooses to open his school for four hours' secular instruction on some or all Saturdays, attendance on that day should not be excluded from the 100 attendances necessary to qualify for results fees. Nor need any difficulty be anticipated with regard to the inspection of these schools on Saturday. This could easily be done. Lastly, it may be urged that a teacher's work is already sufficiently severe, and that it would be a mistake to allow him to teach during six days each week. This, however, without any fear of dangerous consequences, might be left to managers and teachers themselves. Notwithstanding its annoyances, it cannot reasonably be urged that a teacher's work—I speak of this district—is at present excessively severe. From 10 to 3 o'clock on five days of the week cannot be considered as long hours, relieved as the interval is by half an hour in the playground, especially as two or three vacations and several holidays break the monotony of the year. Of course, too, if the schools were open on Saturdays during the months on which pupils could best attend them, they could, if necessary, be closed for longer vacations than at present in spring and harvest.

I have spoken above of the increased willingness to work which is evident on the part of many teachers. I regret that I do not see a corresponding improvement in the skill with which this work is applied. I think teachers do not turn their attention sufficiently to the art of school management. Many of them overlook the fact that the chief object of every improvement in their position has been to secure the permanent services of a skilful body of teachers. Every future improvement must have the same object. It is not mere work that is required ; it is skilful, successful work. I know many teachers who work industriously all the year, and yet whose schools never make a good examination. To such teachers the annual results' examinations brings great disappointment. They attribute failure to various causes, never to the real one. But any person visiting one of these schools while in ordinary operation can easily see the real cause. There is an evident absence of good management. The teacher himself is, with more or less skill, instructing a class, but his supervision over the rest of the school is very slight.

Indeed he often so places himself and the class with which he is engaged that it is impossible for him to see the pupils in the desks or in the remaining drafts. As a necessary consequence the effectual work done is confined to the class standing in front of the teacher himself. Again, class-movements are seldom well made; they occupy far more time than is necessary, and are attended with needless confusion. The distribution and collection of copy-books, slates, &c., could be effected as well, or better, by pupils than by the teacher, and yet in many schools the principal himself undertakes these duties; thus wasting many valuable minutes out of the 300 which form his school-day, and losing an excellent means of practically teaching order, regularity, and tidiness to the pupils. From these and similar causes into which I shall not enter, it often happens that a teacher who has been as busy as possible from 10 to 3 o'clock, and who perhaps feels tired and exhausted when the day's work is over, has done far less for his pupils than could be done in the same time and with less trouble by a more skilful teacher. And when the time for annual examination arrives, and each pupil has to depend on himself alone, and to answer from the information which he has actually acquired during the preceding year, the numerous failures show how little has been effected by the teacher's constant, but unskilful work.

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Among the various means, therefore, by which the schools of the district may be rendered more efficient, I consider as most important the improvement of the teachers in the art of school management. Fortunately, too, improvement in this direction can be effected by the teachers themselves. Irregular attendance, late attendance, want of books, and neglect of home lessons, are among the causes usually assigned for low proficiency. Over these evils, however, a teacher's power is limited. But every teacher can improve himself. The first question which a teacher, anxious to raise the proficiency of his school, should ask himself is, "How can I render most effective my five hours' daily work?"

Many persons may think that as the most obvious defects in school management have already been pointed out, and the proper remedies suggested in the Board's "Manual of Method," and other works, these defects no longer exist. But it is one thing to point out defects and another to remove them. Still, careful study of these books, with a serious endeavour to apply such portions as are applicable to their respective schools, would do much to improve teachers who are industrious but, hitherto, unskilful.

As a rule a teacher in this district seldom sees any school in actual operation except his own. Each teacher, therefore, becomes a model for himself, and as a necessary consequence his improvement in school management is slow. I am satisfied that teachers, and young teachers especially, could gain much valuable information by spending a portion of their vacations, or an occasional holiday, in visiting other schools. In a former report I referred to the excellence of many of the schools in the district; since the date of that report the good schools of the district have continued to improve, and all these would form admirable models for a young or inexperienced teacher. They would show him what can be done by skill, energy, and perseverance, in circumstances similar to his own. Even a visit to a bad school would be of use, as it would serve to show the evils which should be guarded against.

Closely connected with the improvement of teachers in school management is their improvement in literary knowledge. From what I have already said, as to the hours for school work, it is evident that teachers have abundant time for study. I am satisfied that, as a rule, they do

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not study. This, and not the nature of the programme, nor the difficulty of the questions given, is, I believe, the cause of the numerous failures at the annual examination of classed candidates for promotion.

In this district there is, in general, no difficulty in filling up the vacancies which occur. The supply is fully equal to the demand. But the demand is less than it would be, were it not that old teachers who have ceased to be efficient, are not willing to resign. During the four years that I have had charge of this district, only *one* teacher has applied for a retiring gratuity, and in this instance the application was not made until the teacher was hopelessly ill. Worn-out teachers who have served faithfully for a number of years deserve every consideration, and managers, very naturally, are unwilling to remove them. They linger on, hoping year after year, that "something may turn up." The "something," which they hope for, is a pension. All this is very natural, but in the meantime the school-going population of the localities in which these worn-out men are, suffers irreparable loss.

Monitors.—I have already pointed out the fact that 7 of the 12 teachers appointed during the past year had previously served as monitors, and that one had served as pupil-teacher. For the year ended 31st March, 1876, the numbers were precisely the same; there were 12 new appointments, of whom 7 had been monitors and one a pupil-teacher. Hence, for the two years, 14 of the 24 vacancies were filled up from the monitorial staff. This shows its importance. Every monitor in the district was examined during each of the past two years, and the results show that, almost without exception, they are being carefully taught. In some cases the "extra instruction" (before or after school hours) is not given with sufficient regularity, and this is made manifest by the fact that some monitors, when questioned, are unable to tell the time for such extra instruction. Occasionally, too, monitors from the same school make statements which are contradictory, thus showing that the time for "extra instruction" was not as well defined as it should be. The remedy for this is very simple. The time for "extra instruction" should invariably appear on the "Time Table." In general, from 9.15 to 10 A.M. seems the most suitable time. If the ordinary business commences at 10 A.M., the principal, even if he has no monitor to instruct, is supposed to be in attendance at 9.30; so that by arranging to give extra instruction from 9.15 to 10 he loses—if what is so important to himself may be called a loss—only a quarter of an hour each day. It is evident, too, that both teacher and monitor are more likely to work profitably before 10 than after 3 o'clock.

When first appointed, monitors are, almost invariably, in advance of the programme laid down for them, and as the young persons selected are, in general, remarkable for intelligence, failure in after years should, with very rare exceptions, be attributed to neglect on the part of their teachers. Careful annual examination is, consequently, the best means of insuring due attention to the education of monitors.

But besides due attention to their literary studies, it is most desirable that monitors should, as soon as possible, be made acquainted with the best methods of teaching. The actual work of the school in which he is employed, is, if the school be a good one, the best practical instruction, and will do more than anything else to form a monitor's habits and method. I think, however, that something would be gained by introducing "Method of Teaching," at any earlier period than at present into the course of study laid down for monitors. At present, a monitor may have served three years in third class, and two years in second class, without having had his attention in any way directed to improved

methods of teaching. "Method of Teaching" appears for the first time in the programme laid down for second class monitors, at the close of their third year. The examination for that year is by far the most important which a monitor has to undergo. At it, if successful, he is classed, and his eligibility for promotion to first grade is determined. During his final year in second class, a monitor is required to prepare the whole of "Joyce's Manual of Method and Organization," but as the same year introduces several other, to him, new subjects—(Euclid, algebra, book-keeping, agriculture) he must be satisfied with a very limited knowledge of "Method." No doubt a wise teacher prepares for a monitor's classification-examination long before it falls due; still, many are guided altogether by the programme. I beg, therefore, to suggest that the "Manual of Method" be made two, or even three years' study in place of one; and that definite portions of it be prescribed for each year.

Time Tables.—Formerly the "Inspector's District Book" contained an abstract of the *Time Table* in each school. The new District Book makes no provision for this. Many teachers are fond of changing their *Time Tables;* and sometimes a change is unavoidable. An Inspector taking charge of a new district has now no other means of ascertaining the hours and days for instruction, the vacations and holidays, of the schools under his charge, than to visit each of them. To do so requires several months. I think, therefore, that every teacher should be required to furnish a copy of his *Time Table* to the District Inspector. From these copies the Inspector in charge could at any moment see the actual occupation of each school in the district. Useless journeys to closed schools would be avoided, and faults in the construction of "*Time Tables*" would at once be observed and their correction suggested. Should any teacher wish to make alterations in his "*Time Table,*" he could, of course, do so; but the old "*Time Table*" should be considered as binding, until a copy of the new one was furnished to the District Inspector. The trouble of doing this would be very little, and the expense of postage only one halfpenny.

Sale Stock.—In general the schools of the district are fairly supplied with sale stock. I must however point out that in procuring books, &c., the teachers of this district labour under a considerable disadvantage. Except along its southern border there is no railway in the district, and as parcels from the book department are prepaid to railway stations only, teachers in most parts of this district suffer pecuniary loss, and are exposed to various delays, when procuring requisites for sale to the pupils. Most of the parcels for this district come to Stranorlar Railway Station, but this is 13 miles from the school in the district which is nearest to it, and fully 55 miles from the most remote. Clearly, therefore, teachers in this poor and remote part of the island are not on terms of equality, as far as the purchase of school requisites is concerned, with their brethren in more wealthy localities who can, in two or three days, and without any expense, procure whatever sale stock they require.

Progress.—All things considered, the schools of the district have made fair progress during the past year. The moral tone of the schools is, with few exceptions, very good. "Copying" has almost ceased to exist, and "prompting" lingers in a few schools only. In general the records of attendance are now kept with scrupulous accuracy.

Migratory Pupils.—When a pupil removes from a school, A, to another, B, it is desirable that the teacher of B should know the class in which this pupil was last examined at A, and the result. To ascertain this

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the teacher at B questions the pupil himself, but in many cases the information obtained in this way is not reliable. It might be thought that in doubtful cases the teacher of B would apply, either by letter or otherwise, to the teacher of A; but teachers seem to have a strong objection to this plan. At all events they seldom adopt it. Every teacher should be required, when receiving a pupil who had attended another school, to communicate with the pupil's former teacher; and the latter should be required, when so asked, to give the necessary information as to pupils' former *passes*. Printed forms for these purposes should be supplied to each school.

Reading.—The results system has done much to raise the classification in most schools. Formerly, pupils were often allowed to linger for several years in the same reading book; now this seldom or never happens. As a consequence, there are now few schools in which several pupils have not reached fifth class, and in many schools there is a sixth class. In general the reading is correct, (failures are most numerous in third and fourth classes), but the subject-matter does not receive sufficient attention. The poetical pieces are not learned accurately, and are generally repeated in an indistinct, rapid manner.

Writing.—The writing in the schools of the district is steadily improving. The copy-books are now neatly kept. Even when the writing is weak and cramped, the books are generally clean and free from blots, as it is well known that every page is liable to inspection, and that nothing attracts attention more readily than a soiled or ink-defaced book. In several schools the writing is now excellent, and in those in which it is careless, the fault must be attributed to want of proper supervision by the teacher.

Oral Spelling and Dictation.—Oral spelling receives due attention. Dictation, too, is, in general, taught with satisfactory success. In some schools much of the benefit that might be gained from exercises in dictation is lost by the fact that the teachers do not treat each class as a whole, but read the various clauses for each pupil, as asked. Of course all the pupils in a class *begin* the dictation exercise at the same time, but the inattentive soon fall back, and in a few minutes the teacher has almost as many classes as pupils. This gives rise to considerable confusion, and as each pupil expects to have the various clauses repeated as often as he wishes, habits of attention are not formed.

Arithmetic.—In general the pupils are fairly prepared in the rules prescribed by the programme. Mental arithmetic has received more attention than in former years. Notation is not well taught. But although arithmetic has received considerable attention during the past year, I regret to say that in most schools the pupils' work is almost mechanical. The reason of each of the various operations performed is quite ignored. Even monitors and candidate teachers are sadly deficient in this point. No part of the results programme refers to the theory of arithmetic, and, as a consequence, it is not taught. This is to be regretted. I think the best remedy would be to place theory of arithmetic among the "extras," for which payment is made. A knowledge of the reasons of the various arithmetical operations would be more useful to most pupils in primary schools, and more attainable by them, than a knowledge of trigonometry, or hydrostatics, or physiology.

Grammar.—This subject receives a good deal of attention from teachers, yet the success attending its teaching is only very moderate. There is, however, considerable improvement as compared with former years.

Geography.—In general geography is badly taught. Although the programme for each class is simple, very few pupils answer satisfactorily. I fear that, to most pupils, a map is merely a coloured surface, having various names and lines printed in different parts, and which, by daily exercise, they are to become expert in pointing out. I know of nothing which would tend more to remove this feeling than the issuing of good *local* maps. The Ordnance inch-maps, now sold at a shilling per sheet would answer admirably for this purpose; and if these were placed on the Board's list, they would, I believe, be readily purchased. Each school would then have a good map of the surrounding locality, and pupils and teachers would begin to take an intelligent interest in the study of geography.

Mr. M. Sullivan.

Needlework.—In schools in which there is a female teacher the pupils are, in general, well up to the programme in needlework. *Darning* and *patching*, not being named in the programme, are not taught. They should, I think, be introduced. A mistress sometimes complains that the pupils bring no "work," when the pinafores, &c., actually on them stand sadly in need of repair.

Agriculture and Book-keeping.—The programme in agriculture having been considered too difficult, many teachers availed themselves of the regulation permitting the substitution of book-keeping for agriculture; and, strange to say, the rural schools most readily did this. But their success in teaching book-keeping was very poor indeed, and it is to be hoped that the recent recognition of the "Introduction to Practical Farming" (a much simpler work than the Agricultural Class Book) will induce many to resume the teaching of agriculture.

Extra Subjects.—Singing is taught with, on the whole, fair success in 24 schools, and drawing with tolerable success in 10 schools. Thirty-two schools have pupils learning elementary mathematics. French is taught in 1 school, Latin in 2 schools, in one of which Greek also is taught. There are now no classes in connexion with the Science and Art Department, although four years ago there were over 20 in the district. The recent regulations of the Science Department have annihilated the classes which then existed.

I have the honour to be, gentlemen, your obedient servant,

M. Sullivan, District Inspector.

The Secretaries,
Education Office, Dublin.

General Report for 1876 by William Kennedy, Esq., District 6—Centre, Strabane.

Mr. W. Kennedy.

Strabane, 3rd March, 1877.

Gentlemen,—I have the honour to submit, for the consideration of the Commissioners of National Education, the following report on the schools in this district:—

The district of which Strabane is the official centre is situated almost exclusively in the counties of Tyrone and Donegal, two schools only being in the county Londonderry. It embraces an area of about 560 square miles, with a population of 75,000, and contains 134 schools of all kinds, of which 131 are in operation. Three of these are the departments of the Newtownstewart Model School, 2 are Poor Law Union

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schools, 1 is a convent school, and the others ordinary town and rural schools. The number has not of late increased much, only 12 of those now in the district having had grants given to them by the Board since the spring of 1870. These were schools previously established, and either in connexion with the Church Education Society or supported by the landlords on whose properties they are built. There are now few schools for the education of the poor within the district that are not National, and scarcely any locality that is not supplied with schools, so that a further extension of the number is not required, nor, with the exception of two or three schools already existing, and for which grants are likely to be sought shortly, is it desirable that the number should be increased.

Of the total number of schools, 51 are in the county Donegal, 2 (1 of these suspended) in the county Londonderry, and the remainder in the county Tyrone.

There are no evening schools. Two were established some years ago, but though both were largely attended by pupils at first, the attendance soon fell off, and in a few months it was found necessary to close them.

The average attendance per school for the entire district during the past year was 41. This number scarcely differs from that of previous years. In 1870 it was 40·1; in 1871, 39·1; in 1872, 38·3; in 1873, 40·7; and in 1874, 41·4. No return was made out for 1875. There is not, therefore, any decided improvement in the regularity of pupils' attendance. In spring and autumn the schools are still very thinly attended, though for about four months in winter many of them are crowded. Pupils are more punctual in the time of assembling in the morning than formerly. This may be attributed in a considerable degree to the operation of the rule which requires the rolls to be marked and the attendance recorded before 11 o'clock instead of before 12. It is very usual, however, to find, on visiting schools about one or two o'clock, that one or more have gone home, though their names are almost invariably entered on the leave-slate kept for the purpose. In many instances I think there is no absolute necessity why they should thus leave after the rolls are marked; and, with the view of checking the irregularity to some extent, I would suggest the propriety of supplying to each school a book in which the names of such pupils should be recorded. This was at one time contemplated, but never carried out; and there can be little doubt that if a permanent record of such cases were preserved in the school it would tend to limit their number.

Of the usual branches of instruction, and the success with which they are taught, I have little to say that has not been said already in former reports. There is a slight improvement in the reading, though the prevailing defect still consists in reading too hurriedly and without attention to the punctuation. This is most marked in first class, where the first word of a sentence is frequently joined to the preceding sentence, with scarcely any perceptible pause at the period. Still first class children are able to read the book better, and are prepared for doing this in considerably less time than they were before the introduction of the present system of examination. Except in a few schools, the subject-matter of the lessons and the explanation and meanings of words receive the attention required, while the pieces of poetry prescribed for being committed to memory are invariably learned and repeated with a fair degree of accuracy. Here, however, as in the reading, the most usual defect is in the piece being said too rapidly. The columns of spelling at the head of the lessons are prepared in the manner prescribed in the school programme. Penmanship and dictation show no decided change.

The necessity of preserving the copy-books written during the year and producing them at the annual examination has caused them to be kept cleaner, and the writing in many cases gives more evidence of care than before. In arithmetic, the examination of the senior classes from cards of printed questions, the work of which must be done on paper, has led to the introduction of a similar method in the usual school business, and a portion of the work is usually done on paper. These exercises, however, do not always give evidence of careful supervision on the part of the teacher, and the work is frequently wanting in neatness and methodical arrangement, while the figures are carelessly made. In first and second classes there is a decided advance in the teaching of arithmetic, in which these classes are much better prepared than formerly; but the theory of the subject in advanced classes, and mental calculation in all classes, do not receive sufficient attention. Grammar is not taught successfully. In third class, where it is first introduced, teachers are satisfied with the mere naming of the parts of speech and repeating the definitions by rote, without taking the trouble to see that the subject is thoroughly understood so far as it is learned: hence the practice of *guessing* prevails to a large extent. Geography also is imperfectly known in nearly all schools. I would strongly recommend the preparation of a small treatise on geography, abridged from Dr. Sullivan's larger work, in the same manner as the abridgment of his grammar lately supplied to schools, and about the same size. There can be no doubt that the introduction of such a work, containing within a small compass the leading features of local geography, and without the introduction of any matter to be passed over, would be attended with valuable results.

Vocal music is taught in 19 schools, and drawing in 9; in about half this number of schools the teaching of these branches is attended with a fair degree of success, in the others comparatively slight results are produced. Almost the only other extra branches taught are geometry and algebra, two or three boys in fifth and sixth classes being frequently presented for examination. In girls' schools and in mixed schools where a workmistress or female assistant is employed, needlework is usually well taught, while there are few schools in which the boys of senior classes are not prepared for examination in either the Agricultural Class-book or book-keeping. Classics are taught in one school—Castlederg—and also in Lifford male—a new school not yet examined.

For two or three years after the introduction of the results examinations, the numbers in senior classes increased considerably. This increase was slight during the past year, and it is probable that in future years the classification of the pupils will not differ materially from what it is now.

It is now five years since the present system of supplementing the teachers' salaries by a payment on the results of the examination of their schools came into operation over the entire country, so that there has been time to judge of its effects, and to test the working of the system fully. That the amount of work done in the cause of education has been largely increased, cannot, I think, be questioned. The interests of teachers are more closely identified with their schools; more earnestness and energy are thrown into their work; while the knowledge that the amount and quality of the instruction given will be tested by an annual examination, in which the progress of each individual pupil will be noted in every subject prescribed for that pupil's course of instruction, cannot fail to have its effect. A spirit of emulation may also be observed among the pupils and a desire to merit promotion with the other members of their class. The number of children qualified by attendances for

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being examined, who absent themselves on the day of examination, is now very small, indeed unless prevented from coming by illness, or that the child has ceased to reside in the neighbourhood, I seldom find that any were absent. The emoluments of the teachers have certainly been increased, but that increase is fairly earned by the additional work done.

There is but a small number of schools in the district where assistant teachers are required, or where the attendance would warrant the payment of salary to assistants. In 25 schools only are assistants employed. One of these, Sion Mills, having 2 assistants, and each of the others 1—all, with the exception of 2, being females; of whom 4 are junior literary assistants. Few principal teachers have, therefore, acted as assistants previously, and the vacancies occurring from time to time in the teaching staff, are not so frequently filled up from the ranks of monitors and ex-monitors as might at first be anticipated. In the case, however, of female teachers, the number who acted as monitors is considerably larger than among males; and there are almost always a number of well-qualified girls who have completed their period of service as monitresses, and who seek appointments as teachers, but for whom there are no vacancies. In the spring of 1870, when the district was first placed under my charge, there were about 43 paid monitors of all grades in it. Since that date 98 appointments have been made—this number including 6 in schools transferred from District No. 1. Of these 44 still remain monitors, and 97 have either completed their period of service or retired. I find that 23 of these became teachers, viz., 8 males and 15 females, who are still, with two or three exceptions, in the Board's service.

In small schools where, during certain quarters, the attendance falls under 30, and where, in consequence, the teacher is paid by a capitation grant instead of class salary, it is difficult to procure or to retain well-qualified male teachers, and as in such schools the amount of results fees is also in most cases small, the difficulty is still further increased. Such schools are generally attended by both males and females, and in several cases the manager has thought it advisable to place the school under a female teacher—where one competent can be procured—rather than appoint a comparatively inefficient male teacher, or one who would be constantly looking for a better school, and ready to resign his situation in the prospect of obtaining another more lucrative. Sixteen mixed schools are now in charge of female teachers, and in most cases they are conducted in a satisfactory manner, though it is not desirable, as a general rule, that boys over ten or eleven years of age should remain as pupils, nor do they usually, where a school, under a good male teacher, exists within a reasonable distance.

As the claims of teachers to retiring pensions, when incapacitated by age or infirmity, have been so often brought before the public, I have thought it worth inquiring how many would probably be entitled to such pensions from age alone. Of 157 teachers, principals and assistants, in the Board's service in this district, there are 10 between fifty and fifty-five years of age; 4 between fifty-five and sixty; and 4 above sixty years. These ages are calculated from the returns furnished by themselves on the occasion of my first visit to their schools, and they are, I consider, substantially correct. It appears then that of the entire number of teachers in this district, only 11 per cent. are above fifty years of age, and 5 per cent. above fifty-five.

Regarding schools situated in contributory, as compared with these in non-contributory Poor Law Unions, I do not feel called upon to give an opinion beyond expressing a hope that some means will shortly be found

for the removal of the grievance of which teachers in the latter class of unions complain, so that all men doing the same work and earning the same results fees, may be equally paid. For the past two years all the schools of this district were in contributory unions, except those in Stranorlar Union, which contains 23 schools. Gortin has now, I understand, ceased to be contributory; there are 20 schools in that union.

Mr. W. Kennedy.

No attempt has yet been made by the managers in this district to avail themselves of the facilities offered for building teachers' residences, and I know of only one case where it has been decided that a residence in connexion with a non-vested school shall be erected, at an early date, with the aid offered by the State for that purpose. Teachers are beginning to feel disappointed that there has not been a more prompt and ready acceptance on the part of those in whose hands the management of the schools rests, of the means placed at their disposal for providing residences, and which may now be built at comparatively small cost to all concerned; sites could, I think, in most cases be procured. I have little doubt, however, that once an example has been shown it will be followed in other cases, and that in a few years we shall see comfortable dwellings, which are so much wanted, provided for a number of teachers.

In conclusion, I may observe, which I do with much pleasure, that I have not at any previous time found the school accounts kept so faithfully as during the past year. If there have been any cases of fraud, I have failed to detect them, though using all the vigilance possible, and I think there is little reason to question the accuracy of the school records.

I have the honour to be, gentlemen, your obedient servant,

WILLIAM KENNEDY, District Inspector.

The Secretaries,
Education Office, Dublin.

GENERAL REPORT for 1876, by J. W. RODGERS, Esq., A.M., District 8—Centre, Belfast.

Mr. J. W. Rodgers.

Belfast, 31st March, 1877.

GENTLEMEN,—I beg to submit the following report on the schools under my superintendence for the year ending 31st March, 1877.

Since my last general report was furnished my district has been somewhat altered. Eleven parishes, with which I was then connected, extending along the north-east coast line, have been attached to a new district with Carrickfergus as centre; and instead some additional work in Belfast has been assigned to me, with eight parishes more inland, which contain the important town of Lisburn and the villages of Crumlin and Glenavy. There are at present 112 day schools and 21 night schools under my supervision, 10 of which were placed on the roll of National Schools only a few months ago. I examined 123 for results payments during the past year. For the present the National Schools in the district are sufficiently numerous. In the parish of Killead there is one to 585 of population, in Derriaghy one to 602, in Magheragall one to 776, in Glenavy one to 786, in Tullyrusk one to 829, and so on with the others. Disturbing agencies occur in the towns of Belfast and Lisburn. In the former Church Education Schools are numerous, and there are some very large schools conducted by the Christian Brothers. The population when the last census was taken was 174,412, but sup-

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posing it to have increased since that time as rapidly as it did between the years 1861 and 1871, it may be roughly estimated as amounting at present to 219,000. Through the courtesy of my colleagues I am able to say that the number of *National* Schools in the town and its immediate vicinity, including Ballymacarrett, is 70, so that the proportion to population is one in 3,128. In Lisburn where there are several Church Education Schools there are eight schools endowed by the National Board, being to population in the proportion of one to 1,160.

Many of the school-houses are excellent in all respects, affording the necessary accommodation to the children who frequent them. Buildings of this class are becoming more numerous every year. Among those most recently erected may be mentioned St. Mark's, St. James's, Greencastle male, and Greencastle female. Some of the Spinning firms have, with commendable liberality, provided admirable school-houses for their half-time hands. It is to be hoped that their example will be followed by others, and that unsuitable houses, of which there are still too many, will soon disappear. It is of the highest importance that children should be trained while at school to habits of order, neatness, and cleanliness, and that they should be made acquainted with and taught to observe at least the ordinary conditions without which health cannot be maintained. The school-houses which are open to the greatest objection are in the town of Belfast, and have been extemporized out of existing houses of inferior character. The schools to which they afford accommodation are for the most part of little value in any way for the very sufficient reason that good teachers would not take charge of them, or if obliged by necessity to do so for a time, they are sure to leave as soon as they possibly can. Wretched structures of the class referred to should be no longer encouraged or allowed. The Board's grants for the support of schools are usually much in excess of the school-fees and local endowments, and there is therefore no hardship in requiring that the school-rooms shall be of such a kind that the business for which they were intended can be carried on in them conveniently, and without danger to the health of teachers and scholars.

The schools in my district are under the management of 65 individuals, some of whom are assisted by local committees. The most usual form of individual patronage is that of a local clergyman—Roman Catholic, Protestant Episcopal, Presbyterian, or Wesleyan. The lay element, however, is well represented, no less than 28 of the managers belonging to that class. Of the 133 schools 76 are under Presbyterian, and 29 under Roman Catholic management; 20 are managed by Protestant Episcopalians, and 8 by members of other Protestant persuasions. School committees, which are unknown in the western districts with which I was for many years officially connected, are quite common all through the county of Antrim. It may be that by this means more interest is taken in the schools than would otherwise be by those for whose benefit they are intended, but it is clear to me that committees, as at present constituted, are by no means an unmixed good. As a rule, in agricultural districts particularly, the members are quite too much on an equality with the teachers as regards social position, and too imperfectly educated to influence the schools usefully. Besides, in the appointment of teachers, in which they not unfrequently claim a voice, they are open to be swayed quite too much by local and private influences rather than by a regard for the interests of education. Quite recently, a school not far from here became vacant, owing to the declining health and efficiency of the teacher who was induced by me to leave the service with a retiring gratuity. The attendance was large, and the local

emoluments were quite sufficient to attract a well qualified master. But in the absence of the manager, who would have given them wise counsel, the committee met, ignored the claims of many well qualified candidates, and appointed an inexperienced, ill-educated lad who lived in the neighbourhood. Happily, when examined by the Inspector who succeeded me in the supervision of the school, his acquirements proved too low for provisional classification, and the manager being allowed to have his own way, a good appointment was eventually made.

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Many of the managers take considerable interest in their schools, visit them frequently, and keep the school buildings in as good repair as the funds at their disposal will allow. It is to be regretted, however, that occasionally managers as well as school committees—educated men from whom better things might be expected—fail to take a just view of their duties or to realize the responsibilities which they have voluntarily undertaken. Schoolrooms, which from the first were unsuitable for educational purposes, or which from the increase of population or other causes have become overcrowded, are allowed to remain for years without alteration notwithstanding the remonstrances of the Inspector and letters of warning from the Education Office. And, as regards the appointment of teachers, one is sometimes amazed how little discrimination is exercised, candidates of the very lowest classification being foisted into vacancies, while others of large capacity and high reputation are left unheeded.

Excluding three Convent Schools which are taught by Nuns, the day schools in this district are conducted by 257 lay teachers. Of these 32 are in first class, 80 in second, and 145 in third or not classed at all. The large proportion of those in the lowest class is striking, and it is more remarkable that those who seek promotion at the annual examinations are not at all numerous. The cause, however, is not far to seek. Most of these low-classed teachers are assistants, and while remaining in that position they have little to gain by studying for a higher status. It is true, if they were seeking the office of principal, a first or second class certificate would usually be of service to them, as a proof that they were possessed of superior qualifications. To assistants as such, however, it brings no other advantage. There was a time when to such teachers promotion in classification brought with it an increase of pay. Now such is not the case. Whether their rank be high or low they receive from the Board merely the salary attached to third class. A great stimulus to exertion is thus removed, and while some of the more talented and ambitious do study and work their way into the higher ranks, the great majority prefer to put off what they regard as the evil day to a future time when, by a happy turn of fortune, they may find themselves elevated to the position of principal teacher, for which, with their meagre attainments, they are but poorly qualified. This is a matter which deserves serious consideration. Comparatively few of the teachers go now to the training class. A Roman Catholic who does so knows full well that he will be at once dismissed from his school, and that his chances of ever obtaining a similar situation are extremely small. Protestants have no fear of this sort before their eyes, but they suffer somewhat in pocket by going. They have to pay their substitute; and, as the business is seldom carried on so vigorously in their absence, there may be a falling off in the attendance, and a consequent reduction in result fees, and, if they be principals, in school-fees also. The training class has not under these circumstances the attactions for them which it once had, so that there is a large and increasing number of them untrained. If such be the case, while, at the same time, as already stated, the number of those who attend the annual examinations is diminishing, the result may be that the qualifi-

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cations of the general body, instead of improving, as might be expected, will in a few years be much less extensive than they were. I would strongly recommend a return to the former practice of paying assistants the full salary attached to their class. Such a course would be attended with some additional expense, but there would be ample compensation in the spirit of contentment which it would create and foster, and in the habits of study and consequent increase in the general standard of acquirement to which it would give rise.

Of the 109 principal teachers, 28 are in first class, 56 in second, 23 in third, and 2 are unclassed. Happily they are all connected with contributory Poor Law Unions, and their school-fees being larger in amount than in most other parts of Ireland, they are in a better position as regards remuneration for the services which they render than many of their brethren.

The following figures are obtained from information supplied by the teachers themselves. Convent, Industrial, Poor Law Union schools, and schools endowed by the Board within the year, are not taken into account. Of 100 principals of ordinary day schools :—

2	receive	£200	and under	£205
20	„	100	„	200
11	„	90	„	100
28	„	70	„	90
28	„	50	„	70
11	„		under	50

The average amount received by each teacher from Board's salary, results fees, school-fees, and local endowments is £84 0*s.* 1*d.* It thus appears that 22 of these principal teachers are comparatively well provided for. The average income of the remaining 78 is £69 11*s.* 3*d.* This is but a modest stipend, and not sufficient in the neighbourhood of a great commercial town to attract much talent. It is greatly to be desired that those interested in the progress of education would recognise this fact, and endeavour to make the position of the teacher as comfortable as possible. Much can be done towards this end if there be only a willing mind. What a step in advance it would be were every teacher provided with suitable school accommodation and a free residence ! And yet there is no district in Ireland, however backward, where these advantages may not be secured by a trifling effort. As regards the first, if the parties interested are unable or unwilling to raise the necessary funds, the Commissioners are prepared to contribute two-thirds of the entire cost of erecting a vested school-house. And in regard to teachers' residences in connexion with non-vested National Schools, the Lords of the Treasury are willing to lend £250 of the sum expended to be repaid in 35 years, by an annual payment of £2 10*s.* for every £100 of such loan.

Of the conduct of the teachers generally I am able to speak in the highest terms. A more law-abiding body is nowhere to be found, and it is only just to say that the great majority devote themselves with diligence and zeal to the duties of their profession, and that they deserve every way the confidence of the Board and the public.

There are 128 paid monitors in the district. Many of these young persons, after serving in a good school for the usual time and receiving careful instruction in the prescribed course, obtain classification without difficulty and make excellent teachers. Few male candidates offer, and those who are appointed seldom complete the ordinary term of service. On the other hand female monitors are numerous and a large proportion of them serve for a period of three or more years.

One of the greatest hindrances to the spread of education here is the

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irregularity of attendance. Children both in town and country are kept at home on the most frivolous pretexts. Often the apology for absence is reasonable enough. Required to assist at farm work, herding, keeping house in mother's absence, sent with father's dinner, attending sick child, nursing baby, are excuses with which teachers are familiar, and they indicate pretty clearly the necessities of our population. Not unfrequently children play truant when they are supposed to be at school. But whatever the cause, whether valid or otherwise, whether originating with the parents or the children, this habit has assumed huge proportions, so that, in the case of many, it would be impossible to make any progress worth the name even under the most skilful teaching. I have added up the average on the rolls for the 12 months ended on the last quarter day preceding my visit in the 105 day schools examined for results payments, and I find the total average on the roll in all these to amount to 14,801. The total average attendance for the same time amounts to 8,708. From this it appears that of the number of the pupils on the rolls only 58·8 per cent. are in average attendance. It must be borne in mind that the average on the roll is unduly large in consequence of children moving from one school to another, in which cases names may appear on the rolls of more than one school at the same time. Making allowance, however, for this, the irregularity of attendance which the above figures disclose is not a little startling. Managers and teachers have been exerting themselves more or less to remedy the evil and with a certain amount of success, but it is hopeless to expect any great improvement until compulsory attendance in some shape or other be introduced. Unfortunately, while there are many children who attend school irregularly, learning little and soon forgetting even that, there are many who never enter a school at all. This is but too evident from the multitudes of idle children to be seen here loitering about the streets in our towns any time between ten o'clock and three, and also from the deplorable ignorance of many half-time hands when they enter our mills and factories.

During the past year the 12th section of the Factory Act of 1874 came into operation here. Provision is made in the Act that children of the age of thirteen, and under fourteen, who hold from the Board's Inspector a certificate to the effect that they have passed a satisfactory examination in the fourth class programme, may be employed full time in mills or factories, being exempt from compulsory school attendance. Usually candidates for certificates are examined either in the school which they are in the habit of attending or in some other school in the same neighbourhood, without regard to the number of attendances which they made during the previous twelve months. Both the children and their parents, however, being anxious for the wages given for full time work, application is made occasionally through the employers for a special examination. At one of these, which I held in December last, so many as eighty-six candidates presented themselves. Many of them turned out to be pupils of the first or second class, and their presence can only be accounted for, under the circumstances, by supposing that there was an impression abroad that the examination would be a mere matter of form. If such was the case, the result must have been not a little disappointing, as only three out of the eighty-six candidates obtained certificates.

I proceed in conclusion to refer very briefly to the state of instruction in the schools. The number of pupils examined by me for results

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payments during the year in day schools was 8,460, or 248 less than the number in average attendance. Of these, 2,216 were infants, all of whom were examined individually, and 85 per cent. of whom passed on one or other of the prescribed standards by which their proficiency was tested. Of the others, 1,549, or 18 per cent., were in the fourth or higher classes. This comparatively small number is not satisfactory. The small proportion of children in the senior classes, however, arises from circumstances beyond the control of the teachers. Children can obtain employment here at a very early age, and for the sake of their small earnings parents frequently remove them from school before they have mastered the merest rudiments of education. Some are subsequently reached by the operation of the Factory Acts, and obliged to return to school half-time till they attain the age of fourteen. Others find their way to night-schools, and by this means add a little to their stock of knowledge and keep fresh in their memory what they have previously learnt. But a large number have no such advantages, and the presumption is that having never been able to do more than read and write indifferently, they seldom exercise these acquired powers, and in the course of a few years lose them altogether.

The fact already referred to, that the number examined is almost equal to the number in average daily attendance, shows that the efforts made to assemble the children on inspection day were on the whole fairly successful. Sometimes the prevalence of sickness in certain neighbourhoods interfered to reduce the attendance, and occasionally from sheer wrong-headedness parents kept their children at home knowing that by doing so they were inflicting a pecuniary loss on the teacher. As a rule, however, the teachers stand well in the estimation of their neighbours, and have no difficulty in inducing them to put themselves, when necessary, to a little inconvenience on their account. During the month of January I examined a school situated in a low-lying district very near to Lough Neagh. Owing to the long continuance of wet weather there was an overflow of water from the Lough, such as had not been for years previously. Many acres of land in the neighbourhood of the school were covered with water to a depth of several feet. Houses here and there were rendered uninhabitable. Others were so insulated that ingress and egress could only be had by boats. Large numbers of the children had to be conveyed to and from the school by this means, yet, such was the popularity of the teacher and so great the desire to have the pupils examined that, even in this very exceptional case, only two of those qualified by attendance were absent from the examination.

At foot will be found a table setting forth the number of children examined during the year, in day schools, in each class, in reading, spelling, writing, arithmetic, grammar, and geography; also the number and per-centage of passes in each subject. Excluding the infants, whose proficiency has been already referred to, 82 per cent. of those examined in reading passed on that subject, 70·8 passed in spelling, 88·3 in writing, 69·5 in arithmetic, 67·7 in grammar, and 57·5 in geography. Considering the fact that my district includes a large proportion of the poorest class of the population of Belfast, and of the half-time pupils who belong to the town, these figures are on the whole fairly satisfactory.

Reading.—In most of the schools the children have learnt to read the lessons in their class books with accuracy and with a certain amount of ease and smoothness. It is seldom indeed that they attain to any higher excellence. I am disposed to think that some improvement is being

effected, but incorrect grouping of the words, inattention to stops, false emphasis, and imperfect enunciation are defects still too common even in the better class of schools.

Oral Spelling and Dictation.—The results under this head are moderately satisfactory. Children in the first and second classes have acquired considerable facility in spelling the difficult words at the beginning of their reading lessons, and also in spelling phrases. Writing from dictation is taught regularly and systematically to the third and higher classes. The exercises are performed frequently on paper, but sufficient attention is not always given to the correction of the errors, and in all such cases the progress made is extremely slow. Some of the teachers spell slowly all the words in the sentence dictated requiring the pupils to draw their pen through all errors, and afterwards to copy correctly from their reading books all the words misspelled. This mode of revision is both speedy and effective, and I would be glad to see it followed more generally.

Writing.—The highest per-centage of passes obtained is in this subject. I am of opinion, however, that the writing as a whole is not more than fair. In many cases pupils pass with an inferior mark, and the copy books often furnish convincing evidence that the supervision exercised is trifling in amount, and of little practical value. Teachers would do well to consider that creditable proficiency in this branch would tend to give character to their schools and make them popular.

Arithmetic.—The per-centage of passes in arithmetic corresponds pretty closely with that in spelling. It is highest in case of the fifth class and lowest in case of the sixth, possibly in consequence of the greater difficulty of the sixth class questions, and the greater irregularity of the attendance in that class. Complaints are sometimes made of the labour necessary to prepare fourth class pupils on the course prescribed for them. In the best schools such pupils get through their examination generally with credit, but in others of a lower type failures are numerous. Test cards are now extensively used, and they have been of considerable service in calling attention to deficiencies, and familiarizing pupils with the mode in which the result examinations in arithmetic are conducted by the Board's Inspectors.

Grammar.—The pupils in the fifth and higher classes parse pretty well, and in the third and fourth they are able to distinguish most of the parts of speech. The knowledge of the text-book, however, is still very imperfect.

Geography has received little attention, as is painfully evident from the low per-centage of passes. In schools of the better sort I usually find the children fully up to the requirements of the programme, but generally the answering is not satisfactory.

Agriculture is not taught with much success.

In Book-keeping the proficiency was rather higher.

Needlework receives a fair share of attention in nearly all the schools in which female teachers are employed.

During the year I examined classes in music, drawing, Latin, French, geometry, algebra, and physical and natural science. The favourite extra subjects are the two first named. Large numbers of the pupils are able to sing school songs in unison with pleasing effect, and not a few of those who execute drawings in my presence acquit themselves sufficiently well to secure pass marks.

I have the honour to be, gentlemen, your obedient servant,

JOHN W. RODGERS.

The Secretaries, &c.

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APPENDIX.

—	Class.							Total.
	Infants	I.	II.	III.	IV.	V.	VI.	
Number examined,	2,216	1,774	1,644	1,277	847	611	91	8,460
Number passed:—								
Infants,	1,886	–	–	–	–	–	–	1,886
Reading,	–	1,440	1,386	1,062	598	552	84	5,122
Spelling,	–	1,237	1,086	907	531	454	77	4,292
Writing,	–	1,481	1,384	1,122	750	567	88	5,392
Arithmetic,	–	1,377	1,235	881	493	529	49	4,564
Grammar,	–	–	–	686	558	422	77	1,743
Geography,	–	–	–	662	439	361	63	1,525
Per-centage passed:—								
Infants,	85	–	–	–	–	–	–	85
Reading,	–	81	84	83	70	90	92	82
Spelling,	–	69	66	70	62	74	84	70·8
Writing,	–	83	84	87	88	92	96	88·3
Arithmetic,	–	77	75	68	58	86	53	69·5
Grammar,	–	–	–	53	65	69	84	67·7
Geography,	–	–	–	51	51	59	69	57·5

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GENERAL REPORT for 1876, by JOHN GORDON, Esq., District 10—Centre, Newtownards.

Newtownards, April, 1877.

GENTLEMEN,—I have the honour to submit, for the information of the Commissioners of National Education, the following report on the state of the schools under my inspection during the past year.

The district of which I have had charge for the last six years lies in the north-east of the county of Down, and comprises the baronies of Upper Ards, Lower Ards, and Lower Castlereagh, with about half of Dufferin, and a portion of Upper Castlereagh. It includes that part of the municipality of Belfast known as Ballymacarrett, with a population at present of about 20,000, and rapidly increasing; and within its boundaries are situated the towns of Newtownards, Holywood, Bangor, Donaghadee, Comber, Portaferry, &c. Its population in 1871, according to the Census returns, was 88,818, including a town population of 42,464, or nearly one-half of the whole. Manufacturing industry, chiefly in connexion with the linen trade, gives extensive employment in Ballymacarrett, Comber, and Newtownards; Holywood, Bangor, and Donaghadee are much resorted to for sea-bathing. With the exception of a few shopkeepers and artisans in the towns, the remaining population is made up almost entirely of farmers and farm-labourers. The circumstances of the population are, therefore, not specially favourable to regularity of attendance or a sufficient period of school life. "Half-time" mill-workers are at a disadvantage in this respect; the children of sea-side lodging-house keepers are often required at home during the bathing season; and the regular attendance of pupils in the rural districts—of the elder pupils especially—is so much affected by the insufficient supply of farm labour, not to speak of less excusable causes, that teachers have often much difficulty in securing the minimum qualification required for the results examination.

The number of schools under my inspection at present is 124, including 8 evening schools, 3 Model schools, and 1 Poor Law Union school. I have, besides, 4 applicant cases on hand, all likely to be favourably

entertained. There are now very few non-National Schools in the district; a large number of schools of this class—some 14 in all—having become National within the last few years. I may add that there is now no part of the district, with the exception of Ballymacarrett and a very few rural localities, where the school accommodation is not amply sufficient for the population. Indeed many of the school buildings, though almost all of them are non-vested, compare favourably with the vested schools in other parts of the country. The school furniture and the other appliances are also, in most cases, quite in keeping with the character of the buildings.

Of these 124 schools, 17 are male, 17 female, and 6 infant; mixed schools for boys and girls, therefore, form a large proportion of the whole. Many of these mixed schools, both in town and country, have a large daily attendance of pupils. Some idea of this attendance, as well as of the qualifications of the teaching staff, may be formed from the following tabular statement of the teachers and monitors at present employed in the district:—

	Teachers.			Monitors.		
	Males.	Females.	Total.	Males.	Females.	Total.
Class I.,	24	14	38	15	19	34
„ II.,	29	34	63	27	71	98
„ III.,	32	90	122	9	5	14
Totals,	85	138	223	51	95	146

In this return are included the pupil-teachers in the Model school, as they are really first-class monitors under another name.

The average number of pupils on rolls for the year ending with last day of the month preceding each results' examination was, males, 6,506; females, 5,992—total 12,498. The average number present for the same year, males, 3,990; females, 3,602—total, 7,592. The number qualified by attendance for presentation at the results' examination was, males, 4,357; females, 3,743—total, 8,090; the number who were present and examined was, males, 4,013; females, 3,478—total, 7,491; being 92 per cent. of the number qualified, 60 per cent. of the average number on rolls, and 98·6 per cent. of the average daily attendance.

The pupils, as presented at the results' examination, were thus classed:—

Infants,	1,778	23·7 per cent. of the whole.
Class I.,	1,408	18·7 „
„ II.,	1,426	19· „
„ III.,	1,084	14·5 „
„ IV.,	836	11·2 „
„ V¹.,	556	7·4 „
„ V².,	269	3·6 „
„ VI.,	134	1·8 „
Total,	7,491	

Comparing last year with the previous one, there has been an increase of 178 in the number of pupils presented for examination. Comparing also the school attendance in the district with the entire population, as given above, it would appear that one-seventh of the population are on the rolls of our National Schools, whilst a little over one in twelve would represent the number in average daily attendance.

Excluding the infants, of whom 1,564, or 88 per cent. passed in reading, the subjoined table will show the general results of these examinations, in the ordinary subjects:—

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GENERAL RESULTS.

Subject.	Number Examined.	Number Passed.	Per-centage Passed.
Reading,	5,713	5,316	93·
Spelling,	5,713	4,482	77·7
Writing,	5,713	5,055	87·7
Arithmetic,	5,713	4,162	72·
Grammar,	2,879	2,006	69·
Geography,	2,879	1,827	63·
Agriculture,	372	269	70·
Book-keeping,	310	230	74·
Needlework,	1,853	1,729	93·

During the greater part of the year, almost all my time available for inspection work was taken up with these results' examinations. Whatever time I had to spare from this duty I devoted chiefly to incidental visits, and in this way I was able, in many instances, to check irregularities which do not turn up in the course of examination for results' payments; but I had little time to spare for secondary inspections. It is to be regretted, I think, that the mere examination for results should be made to occupy so much of the inspectors' time. My work for the last few years has been almost entirely taken up with the *examination* of pupils, monitors, and teachers; thus interfering greatly with the no less important duties implied in the word *inspection*. Any observations I may be able to make on the state of the schools and any suggestions I may offer for their improvement, are founded chiefly on the knowledge gained by me at these examinations, leaving very much out of account that acquaintance with the teachers and monitors in their capacity of schoolkeepers, and apprentices to schoolkeeping, which can only be gained sufficiently and satisfactorily when the inspector is able to devote one annual visit at least to the proper work of inspection, including observations on the methods pursued in the school, with suggestions, when necessary, for their improvement; *class* examination of the senior pupils in the more intellectual subjects of study; hints as to discipline and organization; examination of the school accounts; inspection of house and premises; interviews with managers, &c. I am aware that *theoretically* each inspector is expected to pay this annual visit to each school in his charge, but *practically*, in my own case, I have found this utterly impossible. With an assistant attached to the district, as in Great Britain, this inspection work could be efficiently carried out; and, besides, the inspector's duties as an examiner for results would thus be rendered much less irksome than at present. All the assistance that has been afforded me during the last three years, has not been more than sufficient to enable me to complete my results' work, annually, within the time allotted for it on my calendar. I do not say that we should yet expect to be placed on the same footing exactly as inspectors in England, in this respect; where, according to Article 10A. of the new Code "The inspector may delegate to an assistant the duty of examining into the attendance and proficiency of the scholars." But I hope the day is not far distant when the Commissioners will consent to relieve, in this way, their inspectors of, at least, part of the labour of the results' examinations.

I proceed now to speak of the character of the instruction given; but before doing so I desire to record my conviction that at no former period in the history of the National Board were teachers so much in earnest in their work as at present, and never were parents so much satisfied with the attention to their children as since the introduction of results' payments. And yet, whilst desiring most earnestly to uphold the principle upon which these results' payments are based, I shall have to refer

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to some tendencies in its practical working which appear to me to be operating against the intellectual training of the pupils.

Of all the subjects taught in our schools, reading is that one which gives me the least satisfaction, even in spite of the high per-centage of passes realized at the annual examination. True, the junior pupils are carefully taught to read with verbal correctness, and this is sufficient to secure a pass; but here their proficiency ends. The senior classes—the fourth and first stage of fifth especially—are sometimes less accomplished in this mechanical performance; whilst almost all the pupils, both junior and senior, are usually unable to answer intelligently on the subject-matter, or give the sense of the passage read, in their own words. And this is by no means confined to the worst schools. In some of the best taught schools in the district I have often been unable to get anything like intelligent answers from the pupils in fourth and fifth classes on the information conveyed in the reading lesson, or on the meaning of the more difficult words contained in it. Three causes at least seem to me to be at work in bringing about this deplorable result:—First, the purely mechanical tendency of the lessons in the first three sections of our First Reading Book; for if children are to be taught to read with intelligence, this work should commence from the moment they are able to read a sentence in monosyllables. No child will give intelligent attention to short, unconnected truisms, repeated *ad nauseam* day and daily for the first two or three years of its school life, many of them about matters of which the child knows nothing by experience, and which, therefore, strike no chord of sympathy and make no pleasant impression. Second, the uninteresting character—I mean to the young—of a large part of the subject-matter in all our Reading Books, from the Second inclusive. Third, and especially, the knowledge on the part of the teachers that mere mechanical accuracy in the art of pronouncing the words in the passage selected by the inspector, is of itself sufficient to secure a pass in all classes except the highest. Some of the best teachers in my district have acknowledged to me with all candour that the reading in their schools is much inferior to what it was some years ago, when the inspector always examined carefully on the lesson read; and this they attribute in some measure to the uninteresting character of a large proportion of the lessons in the new edition of the Reading Books, but especially to the pressure on their time, which prevents them from giving more attention to any subject than will enable the pupils to earn payment for it. This applies with even greater force in those schools in which extra subjects are taught. Reading might be made much more interesting to the pupils if every class were expected, as in England, "to have two or three sets of Reading Books." Each teacher would then be able to select a sufficient variety of what he might consider interesting and attractive reading. I believe, however, that even with our present Reading Books, uninteresting and unattractive as they are, the pupils might be made to read with much greater intelligence and expression. But in order to accomplish this, mere accuracy in pronouncing words should not be sufficient to secure a pass; or, perhaps, as a less severe condition to begin with, the second pass should be paid as a *half* pass, only those pupils who give evidence of intelligent appreciation of the subject-matter being paid for as a full pass. Something must soon be done in this direction; and the sooner it is done the better for the future of National Education and of the people who are to benefit by it. The repetition of poetry, which is now required as a sub-head in all classes above first, might be made to aid the pupils in reading prose; and so it does, I have no doubt, in a fair proportion of the schools. Experience,

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however, proves that the tendency in not a few of them is rather the other way. The unmeaning monotone, the unintelligible rapidity, and the too frequent inaccuracy, often amounting to absurdity, with which a majority of the pupils in these schools hurry over the recitation of the poetry, have compelled me to refuse the slightest credit to either teachers or pupils in every instance in which the poetical selections are not accurately committed to memory and slowly repeated, with proper attention to the pauses, and such modulation of the voice as gives evidence that they understand something of what they are reciting. Anything short of this merely proves culpable carelessness on the part of the teachers, and helps to place a stumbling-block in the way of good reading, which the pupil is hardly ever likely to surmount.

Spelling continues to be fairly satisfactory. The pupils in first and second classes spell with wonderful accuracy up to the point required for a pass, and this good foundation will tell in due time on the senior classes. Spelling from dictation in third and higher classes is really very good on the whole. I do not mean by this that even a respectable minority of the pupils spell with perfect accuracy; but I am satisfied that, even in spite of the low fee attached, a fair amount of attention is given to this subject. More pains should be taken to teach the correct spelling of the proper names learned from the map in the geography lesson.

There is no subject of the school course in which there is so little uniformity of results as the writing. I have never found a really finished style of writing in any school the teacher of which wrote a poor hand himself. Nevertheless, much may be done to approach this uniformity through the medium of the headline copy-books issued by the Board, combined with careful and sustained supervision on the teacher's part. Clean copy-books and careful imitation of the headline are to me an evidence of much more than a well taught writing lesson; they are a sure indication of some of those qualities which are never found in a noisy, disorderly school. Hence good penmanship implies good discipline, neatness, order, and persevering industry; and hence also teachers who write well themselves, but who cannot enforce discipline, never make their pupils good writers. Though I am satisfied that the proficiency is slowly advancing in this district, I would like to see the rate of progress more rapid, and I would especially be pleased to see more freedom and finish in the writing of the senior pupils. The system of promotion based on results has increased very much the proportion of pupils in the higher classes, and pupils may, in consequence, not now write so well as those *in the same class* did three or four years ago; but comparing *age* with *age* rather than class with class, there is a decided change for the better. The class in which there is least evidence of progress is the first stage of fifth. The writing would be better in this class if the pupils were restricted to headline copy-books, and were not required to show "school exercises" at the results' examination.

There is no falling off in the accuracy with which the pupils in the junior classes work their calculations in arithmetic. Though I pass no pupil in second class who fails in simple subtraction, the per-centage of passes in this class is usually much higher than the average for the whole school. Long division is now pretty generally worked in third class, and there is seldom a failure in compound addition. The tables also are very well known. The proficiency in the senior classes is not quite so high, though in all but the worst schools there is decided evidence of the care with which this subject is taught. I refer especially to calculations in which there is little demand on the pupil for any special intellectual

effort, but where the excellence turns upon the ability to work the question *by the rule*, and thus to "find the answer." But beyond this very little is done. Notation usually falls off at the point where decimal notation is expected; mental arithmetic is not even known by name in many schools, and anything which deserves the name of theory has no place on the Time Table. I am assured by the most successful teachers of this subject that there is no part of the school programme upon which so much time is expended and so much pains taken as arithmetic, and that, even thus, nothing short of regular attendance will secure a creditable pass in the senior classes, the fourth especially. My own experience is in harmony with this statement; so that, though the failures on examination day could not by any means be counted on the fingers, still I believe that fair progress is being made.

I have to be satisfied with very meagre results in grammar. A few teachers who like the subject, and disregard the inadequacy of the results' fee, really succeed in making the grammar lesson interesting. But in too many schools the knowledge imparted is so small in quantity and so poor in quality that it is hardly worth paying for at all. I have great confidence in the good which might be done through a series of judiciously taught grammar lessons, especially to the senior pupils; not lessons which have for their sole object "the art of speaking and writing the English language with propriety," but which would aim at imparting some acquaintance with the origin and correct meaning of words, and with the growth and structure of language. It is this kind of grammar which is of true value and which is worth paying for. The discipline implied by this knowledge would widen the range of the pupil's ideas, and draw out his quickness of apprehension. The reading lesson and the grammar lesson would thus exercise a reflex influence on each other; the reading would become intelligent, and hand in hand with this growing intelligence, the knowledge of language—of *grammar* in fact—would unconsciously deepen and expand. It may be said that we have no suitable text-books for this purpose. This may be true, but in a district like this, with so many highly classed teachers, I am greatly disappointed that more is not done even in spite of unsuitable text-books. In marking the passes in this subject I have been influenced to some extent by the low results' fee paid, especially in third and fourth classes; and even in the other classes I hesitated to pass over any pupil who seemed to be making up a fair *memoriter* knowledge of the text, with some slight facility in word parsing.

There is some improvement in the proficiency in geography; maps, with which this district is well supplied, are now more used than formerly; and, on the whole, the pupils answer with tolerable readiness up to second stage of fifth and sixth classes. The pupils in these classes are not usually in sufficient number to warrant the teacher in separating them from the lower stage of fifth class, in the geography lesson. Hence the "geography of the British Empire" is little taught, and hence, in consequence, the frequent failures in those classes in which it is required for a pass. Taking into account the wide field over which an examiner may travel in testing a pupil's knowledge of any map, the proportion of passes at the results' examinations shows that a fair amount of attention is given to this subject in all the best schools. The geography taught in our National Schools, restricted as it is to the mere localizing on the map and committing to memory, lists of names of places which have no real interest to the learner, is to my mind the most uninviting task which the pupil has to encounter during his school life.

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In agriculture only 372 pupils were presented for examination, and in bookkeeping only 310. In many schools no pupils were presented in either subject. The proficiency was usually fair in fifth and sixth classes. I cannot say the same for the pupils in fourth class, but I do not think the teachers are to blame for this. The average age of pupils here in this class is now between 10 and 11 years. At the annual examination I examined a fourth class of 34 pupils on bookkeeping in the Newtownards Model School, the average age of the pupils in which was 10·7 years. Last year the pupils in the same class, and averaging about the same age, were examined on agriculture; and, each year, a large proportion of them passed. Now I cannot but think that the time and labour expended by the teacher in securing results' payments for teaching either agriculture or bookkeeping to pupils whose average age does not reach 11 years might be much more usefully spent in explanation of the subject-matter of the reading lessons, careful attention to the repetition of poetry, elementary explanations in grammar and elementary practice in mental arithmetic; in fact to those subjects which now rank as subheads, and which because they are subheads are too often undervalued even by teachers who aim at producing the highest results. To speak plainly, I would like to see both bookkeeping and agriculture removed from the programme of fourth class, both because the pupils now in this class are too young to learn either of these subjects intelligently, and because their programme in other subjects, as it stands at present, is the heaviest year's work in the whole course.

The proficiency in needlework continues satisfactory; I mean proficiency in plain sewing and knitting up to the limit required from our female teachers when examined for classification. This excludes skill in "cutting out." I have hitherto been satisfied with neat hemming, top-sewing, stitching, &c., with neatness and expertness in knitting stockings. Indeed, until our female teachers are themselves examined on "cutting out," I fear it will be only a waste of time to examine their pupils, even though the Inspector were really competent to do so. The sewing machine has not made much way in the schools here.

Much attention is given to extra subjects in this district. This will be seen from the following statement, giving the subjects taught, the number of schools in which each is taught; the number of pupils examined, and the number passed:—

Subject.	No. of Schools.	Number Examined.	Number Passed.
Singing,	57	2,398	1,626
Drawing,	28	906	509
Algebra,	29	226	173
Geometry, &c.,	12	53	35
Magnetism, &c.,	4	79	65
Physical Geography,	3	70	56
Botany,	2	37	28
Heat, &c.,	1	12	10
Sewing Machine,	2	18	18
Latin,	6	39	30
Greek,	1	8	6
French,	4	27	20

A much larger proportion would have passed in singing, if the theory, including a knowledge of the names and position of the notes on the stave, had been better taught. I had often to refuse a pass to pupils in the higher classes in consequence of their utter ignorance of this elementary knowledge. The teaching in this branch is too much confined to the mere *practice* of singing songs in unison; the ability to attempt

harmonized pieces being confined to a very small number of these 57 schools. The chief progress made during the year has been in *individual* singing of the scale; this I make one condition in securing a pass, and the improvement in this exercise, compared with the attempts made on former examinations, is most gratifying.

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Drawing is taught with very unequal success. A few of the teachers who have learned something of the art, and who have a taste for it, really deserve encouragement; but many of the attempts made by the pupils to imitate the simplest outline bounded by either straight or curved lines resulted in utter failure. No one should attempt to teach either singing or drawing, who does not know enough of the subject to deserve a certificate of qualification from some competent authority.

With regard to the other extra subjects examined on by me, I have only to say that in nearly all cases the proficiency was sufficient to secure a pass—not a first pass in a majority of cases, but yet such as to earn payment for work done. It is open to question, however, whether pupils should be permitted to take up such extra subjects as botany, magnetism, and electricity, &c., before they have reached sixth class, and whether teachers should have the option of pushing such subjects, at the expense of pure and applied mathematics. I am glad to say that the tendency to teach natural and experimental science to pupils in first stage of fifth class is not so great as I at one time feared it would be, though it still operates to some extent in a few of my best schools.

Comparing algebra with geometry, the proportion of pupils examined was as 4 to 1; the proportion of passes as 5 to 1. This may be accounted for in two ways. Algebra is so much like arithmetic that the first year's programme can be easily taught to pupils in either stage of fifth class, whereas the ability to comprehend the argument in geometry requires that mental vigour and judgment which comes only with age. Besides, when the teacher is left to choose between the first year's course in algebra and in geometry, he has no difficulty in deciding in favour of algebra, for half the time and labour will be sufficient to prepare the pupils for examination in it. I think that the first year's geometry should be restricted to the first thirty-two propositions of the first book of Euclid, with mensuration as at present; the remaining sixteen propositions of this book to be added to the second year's course.

I am unwilling to say anything which would appear to discourage the effort which is being made by some teachers here to take advantage of the permission to teach the ancient classics and French. If the learning of these languages simply means the equating of one written symbol with another, including a fair amount of accuracy in mastering inflections and the more obvious rules for concord and government, leaving out of account critical accuracy as regards quantity, pronunciation, idiomatic characteristics in the structure of each language, &c., &c., then, I must say that the teachers who have taken up these subjects are deserving of all praise. Pupils who learn a little Latin or French, even in this way, have no doubt much advantage over others who are totally ignorant of the declension of a Latin adjective or the conjugation of a French verb. No boy need expect however to matriculate at any of our colleges direct from our National Schools, nor is it perhaps desirable that he should have facilities there for enabling him to do so; but pupil-teachers and monitors should be encouraged to take advantage of such instruction wherever it is given, were it only for the purpose of adding to their knowledge of the English language.

Though I have spoken plainly and unreservedly of the defects which have been forced upon me during the past year, and though I desire to

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see something done whereby these defects may be lessened, I am equally anxious that a large proportion of my teachers should have full credit for earnest, painstaking, and successful work. I could easily name a large number of schools in this district which, when tested by the results' examination, cannot be excelled, I believe, by any similarly circumstanced schools in other parts of the country. Nor are the teachers of these schools confined to those holding the highest certificate of qualification. What I desire to urge is that some of the provisions in connexion with these examinations should be so modified as to secure the sympathy of the teachers in their efforts to remedy the defects I have been pointing out; and, notably, I would refer to some modification in the requirements for a pass in reading. If the teachers could be induced by a money consideration to give proper attention to the subject-matter, including the meaning of words, much of the objection to the results system of payments would be successfully met.

I have already assigned some causes for irregular attendance, and for the early withdrawal of many of the pupils from school. The recent change in the Factory Act aims at remedying the latter evil in the case of mill-workers, but no similar remedy could be made to apply with effect to that part of the population employed in agriculture, especially when there is a dearth in the labour market. Teachers have found it to be to their interest to urge more regular attendance upon their pupils, and with some success; for I find that the average daily attendance has, in many schools, kept steadily increasing during the last few years; and the attendance over the entire district is greater this year than last. There is still much room for improvement in this matter, however. A scheme of rewards for punctual and regular attendance has been inaugurated by the Liverpool Council of Education, a scheme "which," in the language of Canon Farrar in his address on the occasion of a recent distribution of scholarships and prizes, given by the Council, "quiet, unostentatious, and inexpensive as it is, is yet, I say without hesitation, the most admirable which ever came under my notice. It bears on every line of it the marks of thought guided by great experience, of loving discrimination and practical insight, devoted to objects of the greatest catholicity, and working with that clearsighted culture which rises into the sunshine of loftier regions, above the battles which partisans and sectarians wage with each other so fiercely in the mist." And what is the object of this scheme of which the learned Canon speaks in so laudatory terms? Its object is "to promote elementary education by encouraging a more general and increased regularity of attendance." And this is done (1) "by means of good attendance scholarships which entitle the holders to free education," and (2) "by conferring suitable honors and rewards upon head masters and head mistresses (*a*) whose schools shall present the best early attendance of the children, and (*b*) who shall, in competition, present to Her Majesty's Inspector the greatest per-centage of children in average attendance." This scheme is said in the report from which I take these extracts "to have succeeded for so far beyond expectation." "Attendance previously fairly good has been rendered decidedly more regular." "Punctuality has been attained in a higher degree than before." "The *drawing* influence of the scheme renders needless the *driving* influence of compulsion." If a wisely devised scheme such as this, has done so much for Liverpool, it is worth considering whether some modification of it could be made to tell upon the attendance in this country. Our educationists, legislators and journalists, point to irregular attendance as that difficulty which no system of education

yet devised has been able to meet. I do not therefore need to apologize for directing attention to a proposed remedy which is said to be so effective elsewhere, and for suggesting that we might possibly learn a useful lesson from the experience thus gained.

One of the most gratifying features in connexion with the progress of education here, is the generous local aid afforded to the teachers. School fees are liberally paid, and many schools have, attached to them, endowments or donations from the landlords on whose property they are located. The Poor Law Unions have all been contributory for so far, thus adding materially to the income of both principal and assistant teachers. In the matter of school fees especially, a noble effort is being made; many parents in all parts of the district being willing to pay from 5*s.* to 10*s.* a quarter for the education afforded in the National school. The National teacher is thus placed in such a social position as to command the respect of the community amongst whom he labours. And surely this is as it ought to be. Nor should the honourable position thus attained be without its lesson. What has been done in a community made up chiefly of farmers, small shopkeepers, artisans, lodging-house-keepers, mill workers, and farm labourers, can surely be approached, if not fully realized, in most parts of the country. "Where there is a will there is a way;" Jupiter always helping those who help themselves. From the returns made by the teachers at the annual Examination I have compiled a statement which is appended to this Report, showing in 60 schools—45 of them under male teachers, and 15 under females—the emoluments of the principal teachers, separately; and where any other members of the family are employed in teaching, showing the entire family revenue. The male teachers are placed in three groups, according to class; the female teachers, being much fewer in number, are not so grouped. The entire family income of each of the 15 first class male teachers ranges between £286 12*s.* 3*d.* and £105 14*s.* 1*d.*, the income of the fifth in rank amounting to £224 10*s.* The personal income alone of these principal teachers ranges from £233 14*s.* 6*d.* to £92 3*s.* 4*d.*; 6 of them earning more than £150 a year, and only 1 being under £100. The average personal income of these 15 teachers is £141 15*s.* 6*d.*, and the average of the total family income is £181 15*s.* 3*d.* Seven of the 15 second class teachers have a family income of over £100 a year, ranging between £192 13*s.* 9*d.* and £101 16*s.* 10*d.* Five of them have a personal income of over £100 a year, ranging between £121 11*s.* 9*d.* and £101 16*s.* 10*d.* The average personal income of these 15 second class teachers is £88 18*s.* 10*d.*, and their average family income £105 13*s.* 6*d.* One of the 15 third class teachers has a personal income of £104 7*s.* 9*d.*; the average family income of each is £71 16*s.* 5*d.* Of the 15 female teachers, 6 are in first class, 7 in second, and 2 in third. Their incomes range between £132 1*s.* 7*d.* and £65 8*s.* 4*d.*, their average income being £87 16*s.* 11*d.* These returns do not include the teachers in the Newtownards Model School, nor do they take into account the sums realized in many cases by private tuitions, and by science classes in connexion with the Science and Art Department. It is surely unnecessary to formulate more definitely the obvious inference to be drawn from these figures. A more satisfactory solution of the "contributory" difficulty, whereby this source of local revenue may be made permanent and uniform, and a more liberal provision for the old and infirm, with the addition, perhaps, of class salary to the assistants, as a stimulus to many of them to qualify themselves more highly for their work, seem to me to be all that is now needed here to place the National teachers on a footing of comfort and independence. The man who is not able to pro-

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vide a competent support for his family in this district, even at present, has sadly mistaken his calling; and must, like many of his unfortunate fellow mortals in other occupations, submit to that penalty which is the natural consequence of his ignorance or incapacity.

The paid monitors, with few exceptions, answer satisfactorily at the annual examination. In fact, since the introduction of results payments I have so many candidates for the office that I have no difficulty, usually, in making suitable selections. This increase in the number of candidate monitors, together with the shortened period of service in second class, is rapidly putting the supply of qualified teachers in advance of the demand. To remedy this, as well as to benefit the monitors themselves, I would suggest that the second class monitors be required, as formerly, to give a four years' service, the period of service of those in first class being thus reduced to two years. This would prevent second class monitors from being classed as teachers before seventeen years of age, and would afford, nevertheless, a sufficient supply of classed teachers to fill all vacancies. Every monitor worthy of being retained as a teacher would thus be prepared to pass a more testing examination, and in this way the standard for mere classification could be raised without prejudice to the service. At present there are a number of second class monitors in this district who have completed their period of service, have been examined, and recommended for classification, but who cannot find employment as teachers. Under existing arrangements the number of qualified candidate teachers of this kind is likely to increase from year to year.

Although my duties in connexion with the Model School require my presence there on an average once a week, at least, in addition to the annual examination for results' payments to the teachers and premiums to the pupils, I am much pleased to be able to say that they are rendered much less burdensome than such duties usually are, by the harmonious co-operation of the teachers, both principal and assistant, in everything that conduces to the success of the institution, either as a day school for the town and neighbourhood, or as a training school for candidate teachers. Much of this success is, no doubt, to be attributed to the esteem in which the head master and the head mistresses are held by all classes of the community. The entire staff, indeed, down to the youngest monitor, deserve credit for their punctuality and regularity of attendance, and for the faithfulness with which they discharge their duties. The success of the pupil teachers, both male and female, at the competitive examinations for assistant teacherships in model schools prove how carefully their teachers attend to the instruction given to these young persons. At no period of their history have the male and the female departments of these schools had so high an attendance as at present, or so large a proportion of pupils in the senior classes; and in no year since I got charge of this district has the annual examination of the pupils been more satisfactory. The evening classes during the winter months in connexion with the Department of Science and Art are still kept up; but the recent restrictions have reduced the attendance by very properly excluding day-school pupils who have not passed for results in sixth class. The students who attended these classes last year, composed chiefly of the pupil-teachers and monitors of the model school, passed almost without failure at the May examinations.

Of the 8 evening schools in the district, 2 have not been in operation for three years, and 2 were temporarily closed during part of last year. The attendance at all these schools is so fitful and irregular that the teachers find it all but impossible to prepare the pupils for examination; and besides, they are now so well paid for their work in the day school,

that they are less anxious than formerly to supplement their salaries in this way. My experience of evening schools is that they really do very little good. *Appendix A.* District Inspectors' General Reports.

Before closing this report, I desire to express my appreciation of much ready and cheerful co-operation of the teachers in all parts of the district, and the generous confidence they have uniformly shown even when they may have been inclined to wish for a more liberal interpretation of some of the requirements of the results' programme. *Mr. J. Gordon.*

I have the honour to be, gentlemen, your obedient servant,

J. GORDON.

The Secretaries, &c.

TABULAR STATEMENT showing the incomes returned by the Principal Teachers of 60 schools in District 10; 45 of them under Male Teachers, one-third holding first class Certificates of classification, one-third, second class, and one-third, third class; with 15 under female Teachers.

I.—15 Schools under First Class Male Teachers.

Name of School.	Income of Principal Teacher from School.	Income of Wife of Principal Teacher from School.	Income of other Members of the family from School.	Total Income derived from School.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
*Ballywalter,	173 19 3	48 10 6	†64 2 6	286 12 3
‡Donaghadee (male),	153 15 11	117 9 4	–	271 5 3
§Beersbridge,	170 7 6	–	72 0 6	242 8 0
Holywood (male),	233 14 6	–	–	233 14 6
Portaferry,	158 16 8	8 0 0	57 13 4	224 10 0
*Newtownards (2),	92 3 4	–	107 4 8	199 18 0
Ballyphilip (male),	120 7 5	–	54 16 9	175 4 2
Tubbernacarrig,	114 10 3	51 19 10	–	166 10 1
Mount Pottinger (male),	159 4 6	–	–	159 4 6
*Ballyeasboro',	140 4 3	11 19 6	6 0 0	158 3 6
Ballymullan,	145 14 5	–	–	145 14 5
Ballymacarrett,	129 9 10	–	–	129 9 10
*Tullycavey,	116 19 6	–	–	116 19 6
Kircubbin,	111 10 9½	–	–	111 10 9½
Millisle,	105 14 1½	–	–	105 14 1½
Average,	141 15 6	–	–	181 15 3

* Not including free residence.
† Including income of daughter as teacher of the infant school.
‡ Including income of Donaghadee female.
§ Not including income of evening school, which was temporarily closed last year.

[TABLE II.

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II.—15 Schools under Second Class Male Teachers.

Name of School.	Income of Principal Teacher from School.	Income of Wife of Principal Teacher from the School.	Income of other Members of the family from the School.	Total Income from the School.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Tullycore,	107 13 9	–	85 0 0	192 13 9
*Short Strand (male),	101 16 10	35 15 0	–	137 11 10
Ballysallagh,	121 11 9	–	6 0 0	127 11 9
*Ballyboley,	80 3 10	–	44 7 0	124 10 10
*Ballymaconnell,	69 11 9	–	39 17 2	109 8 11
Bangor (male),	108 0 5	–	–	108 0 5
*Groomsport,	101 16 10	–	–	101 16 10
Holywood Parochial (male),	97 13 6	–	–	97 13 6
Ballydrain,	78 9 4	–	11 0 0	89 9 4
*Donaghadee (2),	88 0 5	–	6 0 0	94 0 5
Ballyhalbert,	63 17 10	22 11 9	–	86 10 7
Ardquin,	83 13 10½	–	–	83 13 10½
*Loughries,	81 0 11½	–	–	81 0 11½
Woburn,	75 19 3	–	–	75 19 3
Ballygalget,	75 1 11	–	–	75 1 11
Average,	88 18 10½	–	–	105 13 6

* Not including free residence.

III.—15 Schools under Third Class Male Teachers.

Name of School.	Income of Principal Teacher from School.	Income of Wife of Principal Teacher from School.	Income of other Members of the family from School.	Total Income from the School.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Ballymacarrett Road,	104 7 9	–	–	104 7 9
*Portavogie,	90 3 10	–	–	90 3 10
†Ballycranbeg (male),	60 15 11½	29 1 9	–	89 17 8½
*Tullycarnett,	87 10 11½	–	–	87 10 11½
Ballyhaskin,	58 11 8½	–	20 0 9	78 12 5½
Zion Place,	49 1 2	–	28 8 3	77 9 5
*Cottown,	70 1 7½	–	–	70 1 7½
Conlig,	69 1 10	–	–	69 1 10
*Ballyphilip (male), (2),	68 18 10	–	–	68 18 10
Loughriescouse,	61 16 8	–	–	61 16 8
*Ballymiscaw,	61 5 9½	–	–	61 5 9½
Magherascouse,	56 0 1	–	–	56 0 1
Lisbarnett,	54 15 11½	–	–	54 15 11½
*Ballyrogan,	53 15 8	–	–	53 15 8
Ballyblack,	53 8 3	–	–	53 8 3
Average,	66 13 0	–	–	71 16 5

* Not including free residence.

† Not including income derived from evening school, which was temporarily closed.

NOTE.—As these returns of schools under male teachers have, for the sake of uniformity, been limited to 15 in each group, based on the teachers' classification, many schools are excluded in which the income does not fall much below the minimum returned for the corresponding class.

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IV.—15 Schools under Female Teachers.

Name of School.	Class of Teacher.	Total Income from School.		
		£	s.	d.
Mount Pottinger (female),	I.	132	1	7½
*Donaghadee, „	I.	117	19	4
Bangor, „	I.	98	6	9
Holywood, „	I.	95	0	0
Castlegardens,	II.	93	0	0
Belmont (female),	I.	92	12	10
Holywood (infant),	II.	92	6	8
Short Strand (female),	II.	90	0	6
Anne Street „	I.	73	2	3
Comber „	II.	74	4	11½
Holywood Parochial „	III.	73	8	11
Bridge End „	II.	72	12	6½
Newtownards „	III.	69	9	11
Dundonald „	II.	69	5	3
Creighton's Green,	II.	69	2	7
Average,	–	87	16	11

* Included in total family income of principal teacher of Donaghadee mal

General Report for 1876, by Peter Connellan, Esq., District 12—Centre, Sligo.

Mr. Peter Connellan.

Before entering on the question of the proficiency of the pupils and the general state of education in the district, I wish to remark that all my observations and suggestions are based on the supposition, I may say the belief, that what is known as the "Results System," is likely to be permanent in the country.

Reading.—In the great majority of the schools the reading is steady and intelligible—the only qualities which it would be judicious to require or expect in primary schools. I think it would be out of place in this report to enter into all the points that go to constitute good reading, and shall merely say, that slowness without hesitation, and fluency without indistinctness, should be regarded as good reading in a National School. It is gratifying to know that this standard is attainable, and that all the teachers of the district feel it is reasonable.

I believe that in no part of Ireland is the local peculiarity of accent less unpleasant to a stranger's ear than in Sligo and its neighbourhood. Wherever, therefore, the reading is bad, the cause is not far to seek: it must be careless teaching.

Speaking generally of the teachers in connexion with this subject, it may be asserted that they have almost overcome all difficulties but one—and that one is beyond their influence or control, viz., their own want of early instruction and training. I say here, once for all, that until the training question be settled, inspectors' reports must continue to note defects which proper training alone can remove.

Oral Spelling—Satisfactory.

Except in the junior classes, the importance of oral spelling is not very manifest; either it helps written spelling or it is useless. We often hear teachers say in extenuation of dictation blunders, "that boy could spell these words orally"; and very often such turns out to be the case. Under such circumstances one naturally questions the utility of the exercise. In this practical age of results, it looks the relic of an exlpoded system. Possibly by extraordinary care, it may be made to subserve the purposes of dictation. It will be found more troublesome than valuable.

Explanation.—As in former reports I am obliged to state that this im-

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portant part of education is comparatively neglected; although there are, I am pleased to say, many indications of improvement. The teachers are not so ready as formerly to say "we have no time for it; we cannot reach upon everything." This advance is the result of time; and I think we could help time by giving this subject a more prominent place in our programme than that which it holds at present.

As I stated in a former report, I am of opinion, that a child who has learned to read the Third Book, can learn to read the higher books without the aid of a teacher. I therefore think, that in the fourth and higher classes utter ignorance of the matter and language of the reading lessons should be held to disqualify for a reading fee. This, I admit, is a suggestion more immediately in favour of the children than of the teachers. But I am convinced that eventually, it would promote equally the interests of both; as the cultivation of the childrens' powers of observation and reflection would tell upon all the subjects of the school course, thereby lessening the amount and irksomeness of the teacher's labour, while rendering it more profitable.

Arithmetic.—The number of failures in the senior classes was much larger than I had expected. How is this accounted for? It cannot have been caused by the severity or peculiarities of the examiner. The questions were not mine; hitherto I have given almost unlimited time for working them; and in marking I have given considerable credit for a knowledge of the principle, even when a mistake in the work would lead to a wrong answer. I do not think the questions are too difficult; and I know the teachers devote sufficient time to arithmetic. What, then, is the cause of the failures?

Intellectual teaching has disappeared. The circumstances of the country keep the elder children from school for some months at two seasons of the year; and when the examination month occurs soon after these seasons there is not sufficient time to recram. The boasted advantage of practice over theory is here subjected to a very practical test, which proves it to be unreal. This man's cards, and that man's penny books, and the other man's royal road to results, have taken the place of the old solid system of tracing rules to principles; of encouraging the advanced pupils to make rules for themselves; and to dispense with all rules when convenient—in short, to treat rules as servants, not as masters. My experience leads me to believe that this evil will work its own cure. It is partly, but not entirely, or even mainly attributable to the results system. I believe it is chiefly owing to the decline of intellectual activity amongst the teachers themselves—a decline which had commenced long before the introduction of "Results." If results examinations do not tend to improve the teachers in this respect, they certainly supply the most thorough and trustworthy tests yet thought of for discovering the weak points of a school.

Penmanship.—This subject is improving every year. I have three suggestions to offer.

I. Slates for the special use of the first class should be supplied, distinctly ruled of the size it would be thought desirable first class children should write. At present they are left guideless to scribble as best they may—and these the very pupils who most require mechanical aids.

II. The "Passes" of second class should depend on their head-line copies, and not on their transcription, as at present.

III. Book-keeping exercises should not be required for a writing pass for sixth class girls.

Dictation.—I have not been able to effect as much improvement in this subject as I had hoped for. The exercises were generally slovenly although the spelling has improved. Indeed, neatness and order do not

characterize the district in any respect. There is a good deal of rough, useful, honest work done; and there are signs of improvement in the way of refinement. *Appendix A.* District Inspectors' General Reports.

Grammar.—The proficiency in this branch is only middling, and I can see no likelihood of improvement.

To render grammar interesting to young pupils requires on the part of the teachers such skill as, I regret to say, is rarely found amongst them. Grammar, properly taught, is an admirable intellectual exercise; but I would be disposed to confine it to the highest *classes.* *Mr. Peter Connellan.*

Geography.—I am able to report fair progress in this subject, although it is yet far from being in a satisfactory state.

Unlike grammar, geography may be taught with advantage to very young children, even by teachers of very limited acquirements, if they have only an honest desire to succeed.

Take a lesson—say on China—its immense extent, its wall, its productions, the strange and unchanging manners of its inhabitants, &c. Very young children can and will be interested in these things: to take a similar interest in a grammar lesson requires a much more advanced stage of mental development. In short, geography may be regarded as a necessity of school life; grammar, an expensive luxury.

Agricultural Class Book.—This book is more generally read than formerly—theoretical knowledge increasing.

Needlework.—This important branch of female education continues to receive a fair amount of attention. I have to repeat what I and others have often stated—that teachers are much to blame for not encouraging "mending" as well as "making." Some people will never acknowledge that their clothes require mending. But surely the feelings of children who wear torn garments in school cannot be unduly hurt by being reminded of the propriety of mending them, and by showing them how to do it.

After a careful review of all the schools in the district, and excluding those exceptionally circumstanced, such as Model schools, Poor Law Union schools, Island schools, and schools injuriously affected by sickness or other uncontrollable causes, I am able to classify 123 schools as follows—good, 43; fair, 46; middling, 24; bad, 10. The teachers of four of these last are not responsible for their inefficiency. I do not think there are more than three or four teachers in the district who are thoroughly inefficient. All the schools classed as middling could be easily raised to the standard of fair.

About seventy of the Sligo teachers work as well as could be reasonably expected. I believe that this is a higher per-centage of efficiency than is to be found in any other class of public or private servants in the kingdom.

In saying this, it is not to be supposed that I am insensible to defects. In my special report on each school I have freely pointed out its shortcomings. In a general report like this, I feel it my duty not to allow my mind to dwell too intently on the weak points of my district: these have been already dealt with. I feel I should rather give prominence to the pleasant and promising features. It is not easy to do this, as the disagreeable features having caused most trouble, are most likely to catch and keep hold of the mind.

Now, after my three years' experience of the Sligo district, I feel quite justified in saying, that the teachers are an excellent and most deserving body. In all that time not a single charge of impropriety of any kind has been brought against any of them as members of the community. When the youth and unprotected state of many of them are considered, this fact speaks strongly for their worth.

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I am happy to say that managers are gradually becoming convinced that it is unreasonable to require from the teachers rent for the school-houses. Within the past year a great improvement has been effected in this matter. I have heard this rent tax defended on the old theory of supply and demand. A poor teacher anxious for employment will agree to almost any terms. Charity and Justice are beginning to view the case from another stand point.

How has the "Examination for Results" affected, (*a*) the junior classes; (*b*) the senior classes?

(*a*) There can be no doubt that the system has materially and vastly improved the junior classes. Every year I feel more convinced of this. The anxiety "to make the days" has become general amongst the pupils; and I hope that after a few years the cry for compulsory attendance will not be heard in the country. There will always be some parents so poor that compulsion in their case would be cruelty. After a time compulsion will be unnecessary in all other cases.

As I stated in a former report upon another district, it is extremely agreeable to witness the anxiety of children to be present and to pass on the day of examination. In many cases they have remained outside the school for hours after the examination of their classes, hoping I could tell them before leaving whether they would be promoted.

(*b*) How has the system affected the senior classes?

I think it has left them as it found them.

Wherever the great majority of the teachers are in third class, the intelligence of the pupils will not be well cultivated under any system. I therefore cannot attribute to the result system the absence of intelligence in the senior classes. I feel now, as I have felt for many years, that improvement in this respect must begin with the teachers themselves.

This evidence of mine in favour of the results system is the evidence of an unwilling witness, and perhaps may be for that reason of some value. My desire has ever been to look for improvement in another, and I believe a higher direction. A mercenary spirit has been developed which has unquestionably served teachers and pupils—I had hoped for something purer and more lasting. That must have been only a dream. I now feel it my duty to make the most of, and to do justice to, the realities with which I have to deal.

When men whose income is small see a way of increasing it, of course they will exert themselves. In the case of the teachers several elements conduced to make them unusually, and in some cases, extraordinarily industrious—gain, publicity, novelty, competition, &c. Their industry and its results remind one more forcibly of the rush to a newly discovered gold field, than of that peaceable happy industry, to be seen in a quiet community in a well governed state.

It may not be out of place to observe that the results system has suffered from one serious obstacle to its full development. The inspectors are overworked. It is simply impossible for an Irish inspector to do more than merely examine for results. Supervision and "inspection" properly so called, are things of the past. Any one who reads Mr. Fearon's recent work on school inspection in England, will see that provision is made in that country for "inspection" as distinct from "examination." Until some such provision is made in Ireland the results system will not have had fair play.

I do not desire to put in any plea for bettering the condition of Irish inspectors; I leave that to those whose opinion is of more weight than mine. But I do assert that a considerable lessening of the inspectors' work is essential to the full development of the results system. There

are 136 schools in the Sligo district, of which forty-four are over twenty miles from the official centre. When it is remembered that for inspection purposes there is no railway accommodation in the district, I think it will be admitted that it is impossible for one man to thoroughly superintend and examine all these schools. *Appendix A.* District Inspectors' General Reports.

As I have now left the district, probably for ever, I hope I may be permitted to express to the managers my personal and official thanks for their readiness to fall in with my views and for their extreme courtesy and attention to me on all occasions. *Mr. Peter Connellan.*

PETER CONNELLAN, District Inspector.

The Secretaries, &c.

GENERAL REPORT for 1876, by D. J. ROANTREE, Esq., District 17—Centre, DOWNPATRICK. *Mr. D. J. Roantree.*

Downpatrick, March, 1877.

GENTLEMEN,—I beg to submit the following as my general report for the year 1876 :—

The teachers as a body appear to me to be working faithfully for the instruction of their pupils; yet the general result of their labours cannot, I regret to say, be regarded as satisfactory. For the partial failure of their efforts several causes may be assigned, but foremost among them must undoubtedly be placed the irregularity of the children's attendance. In the district there are few schools in which the regular attender does not make at least tolerable progress in the essential branches of a plain education, but no amount of skill or devotedness on the part of the teacher can succeed in making a scholar of the child who, like the bulk of those I examine, is kept away from school for a month or more every spring and every autumn, and who during the other two seasons is absent nearly as often as he is present. In the first general report which, some fourteen years ago, I had the honour to present to the Commissioners, I was compelled to point to irregularity of attendance as one of the main obstacles against which those who are engaged in the education of the people have to contend. And if now, after so many years' experience as an inspector, I am asked to suggest a remedy for an evil, unfortunately but little diminished in the long interval, I am forced to confess that I can think of none likely to prove effectual, unless I am permitted to regard as such that expedient to which of late the eyes of most teachers, and of many others interested in education, appear to turn as to a last resource; I mean compulsory attendance. Not that personal influence and individual exertion have been always powerless to arrest the evil. Under favourable circumstances—notably in convent schools—the influence of teachers and of managers has done much to correct the abuse; but, as a matter of fact, the personal qualities and the other conditions necessary to success are so rarely found united in the undertaking, that it would be vain to expect from private action alone anything approaching a general reform. No more powerful incentive to the employment by individuals of every available legitimate means of bringing the children into the schools could perhaps be devised than that which is supplied by the system of payment for results. Hence it may not unreasonably be inferred, after this system has been five years in operation, that private effort has effected all that it is capable of effecting towards bringing about the desired reform. And yet private effort has

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failed. Parents, quite aware of the bearing which the condition as to attendance has upon the earning of payment for results, are too often ready to credit the teachers with selfish motives in urging that the children be sent constantly and regularly to school. In some instances persons have actually gone so far as to count the number of attendances their children have given within the year, and to regard their further presence at school during the results period as superfluous after this number has reached the lowest that qualifies for admission to examination. No wonder, then, that murmurs have been heard against the recent regulation raising this minimum from ninety to a hundred. My experience, however, warrants the assertion that a pupil who does not attend many more than a hundred days within the year cannot, unless under circumstances exceptionally favourable, be prepared to answer respectably on the programme of any class above the third. Even in the junior classes a pupil whose attendance has not been much in excess of the qualifying minimum rarely answers satisfactorily when any considerable interval elapses between the completion of this short period of attendance and the day of examination. When, in connexion with all this, the additional fact is borne in mind, that many children, not unfrequently as many as half the number on books, are excluded from almost every examination for having failed to give even this minimum number of attendances, it is hard to resist the conclusion that unless the nation be content to sacrifice in vain, to a large extent, the money and the labour that are expended on popular education, parents must in some way or other be compelled to send their children to school. In saying this I am not unmindful of the difficulties that beset the framing of any practical scheme for this purpose—the difficulty arising from the jealousy with which every measure wearing the appearance of undue infringement on personal liberty is regarded in these countries; the greater difficulty of reconciling the just claims of the school with the undoubted right of the poor man to his child's assistance in winning bread for the family; and, greatest of all, perhaps, the religious difficulty. This, of course, is not the place, nor does it come within my province, to consider the means of overcoming these obstacles to a settlement of the question; but every friend of elementary education will earnestly desire that some effectual means of surmounting them may be speedily arrived at.

Want of adequate special preparation of the teachers for their important duties is another of the main impediments to the progress of education in the district. To insure the introduction of the best plans of organization, and of the most approved methods of teaching, into the schools, experience abundantly shows that it is not sufficient to place in the hands of the teachers good treatises on school management. Two works of this kind, eminently practical in character, were a considerable time ago sanctioned by the Board, and a knowledge of the subjects treated of in those books is required of teachers and monitors who present themselves at the periodical examinations. No study, it would naturally be supposed, could be more attractive and interesting to anyone who is engaged in the work of education. It happens, nevertheless, that on no other portion of their respective programmes of study do teachers and monitors so frequently fail at examination as on the subject-matter of the books referred to. The truth is that the teaching body have little or no faith in, and can with difficulty be induced to try, systems of school-keeping and methods of teaching which they have not seen in actual operation. Of this truth, and of its obvious inference, the importance of putting candidates for the teacher's office through a long

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and suitable course of training, every day's experience strengthens my conviction. Hence I anticipate gratifying results as regards the interests of education from the recent extension of the period of training to ten months, and I have strong hopes that the Commissioners will be induced by the success of the experiment to extend the course still further.

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I shall now proceed to make a few observations on the character and extent of the instruction imparted in the several branches of the school programme.

Reading.—"Plain, distinct, and roundly pronounced reading, if evincing a clear sense of what is read, is the thing mainly to be desired."

A large proportion of the pupils who were examined in this subject have succeeded in obtaining at least secondary "passes." It must, however, be admitted that in awarding these, a somewhat mild interpretation had often to be given to the reasonable requirement set forth in the above quotation from a circular issued by the Board. In but too many schools, I regret to say, the reading is not such as could in strictness be described as either "distinct" or "roundly pronounced." Where reading is not well taught, familiarity with the lesson read begets a hurried delivery altogether incompatible with roundness of pronunciation; while, on the other hand, a lesson that has not been repeatedly conned over is read in a mumbling, hesitating style, and with an irregular grouping of the words; faults that either greatly obscure the sense or render it wholly undistinguishable. The presence of these defects not merely proves that sufficient care has not been taken to train the children to the acquirement of a clear and precise enunciation, but it points unmistakably to the existence of a much more serious evil; I mean the neglect of explanation. For, although it is quite possible for a teacher who is a good reader to lead his pupils in the reading or repetition of set pieces to imitate his style so exactly as to read or repeat with apparent intelligence what they by no means understand, a reader can scarcely be said to understand the matter of expression who fails to convey, by his style, more or less evidence of that understanding to his hearers. Now, if indistinct reading is useless to an audience, reading not understood is useless to the reader himself. Hence the imperative duty of the teacher to translate, so to speak, into the homely Saxon English of the cottage, the field, and the workshop, the Latin English, which, of necessity, enters largely into the composition of our lesson books, and which, so long as it remains unexplained, is virtually a foreign language to the children. Valuable, and indeed indispensable, as is the knowledge which the elementary school is expected to transfer from books to the children's minds, immensely more valuable is the power it should impart of using books intelligently. Gifted with this one power, the child is in possession of what will be to him in after life the most readily available and most efficacious instrument of self-education. Let him leave school without having acquired it, and whatever knowledge he may bring with him is destined speedily to evaporate.

When children, then, are reading a lesson for the first time, care should be taken to make them understand the language in which it is written. To effect this something more is needed than causing them to give explanations apart from the context as they are to be found at the heads of some of the lessons, or in the columns of a dictionary. Everyone who is accustomed to the examination of children knows that they are often able to repeat readily such definitions of detached words, and yet fail in trying to explain clauses whose meanings depend upon the application of the very words with the "cut and dry" explanations of which

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they are perfectly familiar. All the difficult words of a lesson should therefore be explained, not only separately but in those combinations in which they occur in the text. A teacher possessing, as every teacher should, a fair acquaintance with English literature, may, with advantage, go farther than this by the introduction to a moderate extent of apposite quotations from good authors in prose and verse, in order to elucidate various applications of the words which he desires to explain.

The style in which the poetic pieces contained in our lesson books are repeated, is far from satisfactory. The all but universal practice is to accent rigidly every alternate or every third syllable of a verse according to the metre and regardless of the sense. The effect of this when the regularity of the measure is at all departed from, as by the introduction, for example, of an anapæst among iambic or trochaic feet, is excessively disagreeable. Very rarely, for instance, have I heard a pupil repeat the first lines of the poem, "The Orphan's Recollections of a Mother," who did not accent the words as marked below, the principal stress of the voice being laid on those in italics—

"I *have'* no moth'er *for'* she died',
When *I'* was ver'y young'."

Again—

"The boy' stood *on'* the burn'ing deck'."

Such is the usual accentuation in reading the opening verse of Mrs. Hemans' well known poem.

After all, perhaps, this defect may be treated with some degree of indulgence, although there is no reason why a teacher who can read well should not succeed in remedying it; but surely no excuse can be found for the mumbling, the listless gabbling, and the disregard of verbal accuracy—such as the omission or undue insertion of little words like *a*, *the*, *and*, *his*, *her*, or the substitution of one of these for another—which too often characterise this exercise.

The results of examination in spelling, although on the whole fairly satisfactory, would have been higher had a few prevalent faults in the teaching of the subject been avoided. In revising the exercises written from dictation, teachers are too frequently content with merely pointing out the misspelled words, seldom taking the trouble of making the children write them even once correctly.

In phrase-spelling the children have rarely been accustomed to repeat the phrases immediately before spelling them. This repetition has two manifest advantages; it lets the teacher or examiner know whether the words have been correctly taken up by the child, and it helps the latter to remember them.

The proper division of words into syllables is seldom thought worthy of attention; yet it is unquestionably an important help to the reading of long and unfamiliar words. Teachers of the old school, it may be remembered, conducted this exercise of oral spelling in a very elaborate style. Not only had the sound of each syllable to be separately given in the course of spelling a word, but no matter how many the syllables, as each new one was uttered, the pupil was compelled, after giving its distinct sound, to sound it again in combination with the previously spelled portion of the word. The second part of this process (beyond the extent of pronouncing the entire word after spelling it) was no better than a waste of time; but I think the second part should be revived.

Sounding each syllable as it is spelled would undoubtedly facilitate further the reading of long and apparently difficult words. I say "apparently difficult," for in reality there is seldom any greater difficulty in reading the longest word than in reading the shortest, the seeming difficulty in the former case arising merely from the number of syllables, each of which is usually a sound simple enough in itself.

Writing.—In town schools, and in any where the proximity of factories supplies a special motive for attention to this branch, it is taught with a fair degree of success. The same may be asserted of many schools in purely agricultural localities; but in some of these writing, although practised by the pupils, cannot be said to be taught at all. A glance at the copy-books is sufficient to show that the usage is to place head-lines before the pupils, and leave them to copy these as best they may without the assistance or supervision of the teacher.

The schools in which the written home exercises are good, as to matter and execution, are even fewer than those in which the teaching of mere penmanship is moderately satisfactory. Exercises on a variety of subjects are found crowded together into the same book; the excuse, only too well founded I fear in many cases, being the unwillingness of parents to incur the trifling expense of providing a separate book for each subject. Then the writing is carelessly executed, and the work, especially in entering "sums," exhibits no attempt at orderly arrangement. The exercises done on paper at examinations for results are usually similar in style. Here I would point attention to the way in which figures are too often made. For obvious reasons these, like proper names, should be written as plainly and unequivocally as possible; yet, especially by females, we find 4 made like 7; 7 like 9, or *vice versâ;* 5, by a sort of perverse ingenuity, forced into a resemblance of 8; and sometimes figures so scratchy and misshapen that it is impossible to conjecture what they are intended to represent. To remedy this, I would suggest that teachers insist upon the pupils forming the figures carefully and correctly in all arithmetical exercises, whether on slates or on paper, and that on one day in each week the writing exercise on paper should consist exclusively in copying well-made figures.

Arithmetic.—Taking the schools of the district as a whole, I am able to report that a fair amount of expertness and accuracy has been attained in arithmetical calculation. This statement, however, applies only to the common routine work of "doing sums." In the examination of even the senior classes, every question partaking of the nature of a problem is usually unattempted. It is much to be desired that instruction in this branch should be of a more practical character. The arithmetical exercises proposed to children at school should doubtlessly consist in the main of such accounts as they will ordinarily require to make up in the money transactions of after life. To anyone who has not had experience of the extent to which school business is the victim of routine, it would seem incredible that a boy or girl who could, for example, readily multiply £7 15*s.* 6*d.* by 98, would look puzzled, and hesitate, and perhaps ultimately fail, if called upon to find the price of, suppose, 98 heifers at £7 15*s.* 6*d.* each; yet I need hardly say that instances of this kind are frequently to be met with.

Pupils of the highest class rarely exhibit in mental arithmetic that "expertness" which our programme requires. Very few teachers cause their pupils to become familiar with even the principal rules in this branch as given in the Board's smaller treatise, or in other books of arithmetic; and yet, besides the obvious direct value of mental calcula-

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tion to the mercantile man, the teacher has perhaps at his command no more powerful means of quickening and sharpening his pupils' intelligence, and of training them to vigour and exactness of thought.

Arithmetical tables, an important part of mental arithmetic, receive on the whole a due amount of attention. Yet, while the addition and subtraction tables are required to be taught in all the schools of the district, and are well taught in most of them, it is not uncommon to see children who are quite familiar with those tables obliged to have recourse to strokes on their slates for the purpose of discovering the sum or the difference of two small numbers. In this, it may be remarked, we have an apt illustration of the character of much of the instruction given in our schools. A great deal of the knowledge which children acquire is useless, and, so to speak, dead, for want of the further knowledge, how to apply it. It is a singular fact that even highly classed teachers of long experience do not always know the application of these simple tables. And yet it seems sufficiently obvious. A child, for example, is not able to tell at once the difference between 15 and 7. Instead of being permitted to arrive at the discovery by making fifteen strokes on his slate, and rubbing out seven, he should be made to repeat the subtraction table "7 from 8," "7 from 9," &c., until he comes to "7 from 15." I know it will be said that addition and subtraction can be taught without using those tables. Of course they can. And I have sometimes met with classes that broke down completely in attempting to repeat those tables, although they had immediately before succeeded in working correctly exercises on their slates in addition and subtraction. It is, however, a poor argument against the use of a smooth and direct road to say that a rugged and circuitous one leads to the same point.

Grammar.—The knowledge of grammar exhibited by the pupils in a majority of the schools may be fairly described as a remembrance of words with scarcely any ideas attached to them. The third and fourth classes are usually prepared to repeat the definitions of the parts of speech as contained in the text-book in common use, but so little are these understood that when the definition of one part of speech is asked for, especially from the third class, that of another is not unfrequently heard in reply. In like manner, while in a few schools pupils of the highest classes have learned to parse simple sentences intelligently, parsing is in too many instances no better than a haphazard application of a few stereotyped verbal forms, little if at all understood.

But it is in English composition that the break-down of the attempt to teach grammar is most glaringly apparent. Rarely indeed have I had the pleasure of awarding a full "pass" in this subject to a pupil of the sixth class. This was owing to the style of the letters that have now to be written by this class as a test of their proficiency in grammar. The observance of the recognised form of commencing and of concluding a letter showed that the subject had received some attention; but not only were violations of the principal rules of syntax and the use of vulgar and provincial modes of expression by no means unfrequent, but even one of the simplest requirements of written composition, the division of it into sentences, was too often neglected.

To secure more satisfactory results in the teaching of grammar, I would recommend, in the first place, that the study of the subject be deferred until the pupils have entered the fourth class. Children in the third class are usually too young to be capable of learning grammar intelligently. The time spent upon it at present in that class would be much more profitably devoted to reading. By opening the children's

minds, reading, when accompanied, as it ever should be, by explanation, is an excellent preparation for the study of grammar as for all other studies. The fee now paid for a "pass" in grammar in the third class might go perhaps to increase the fee paid for a "pass" in reading in this and the other classes. *Appendix A.* District Inspectors' General Reports.

A teacher who desires to impart to his pupils any knowledge of grammar deserving of the name, must put the subject before beginners in some such way as that explained in the introduction to Dr. Sullivan's grammar. For reasons which will appear further on, I would except from this observation the plan of parsing the compound tenses, which is recommended in that treatise. If in giving the first lessons in grammar the use of a text-book should be thought desirable, one in which the definitions and rules are, as far as possible, expressed in simple and familiar language should be selected; and even in the use of such a book care should be taken that the pupils understand thoroughly everything they commit to memory. *Mr. D. J. Roantree.*

In parsing and composition I have no doubt that higher results would have been attained but for the almost universally prevalent confusion of the English mode of parsing with the Latin or Murray's, both of which are described, while the former is preferred, in the text-book that is commonly used in our schools. On this subject I have seen no reason to alter the opinion expressed by me several years ago in an unpublished general report. In that report I took the liberty of expressing a preference for the Latin method of parsing, and principally for this reason, that while the terms "perfect tense," "pluperfect tense," "subjunctive mood," &c., which are employed in this method, may not be the most accurate and suitable that could be devised to designate the combinations as names of which they have been so long and so generally recognised, yet, without these or some other analogous terms, it is impossible to teach the use of these combinations in speaking and writing.

Geography.—The results of examination in this subject have not been as satisfactory as I could wish. The causes of failure are to be found both within and without the school. That skill and that attention necessary to success are seldom brought to bear on the teaching of the subject, and, beyond a doubt, a popular prejudice exists against the instruction of children in geography. The latter cause is, I fear, beyond the control of the teachers; although it is conceivable that a teacher's personal influence might sometimes be able to combat the prejudice successfully. For the other cause referred to it is not easy to find a sufficient excuse, as more than one book on the Board's list supplies clear and ample information on the best methods of teaching geography. As, however, I have always found vague and widely different notions prevalent as to the exact amount of geographical knowledge required by the several provisions of the programme under this head, I think it would be of much advantage to the teachers if such terms, for example, as "the outlines and general features of the Map of the World," "to know the Map of Europe," "to know the Maps of all the Continents," &c., each of which terms may be employed in senses differing largely in extent, were precisely defined in a short appendix to the "Programme of Instruction and Examination."

Extra subjects.—Vocal music, drawing, management of poultry, plain cookery, algebra, geometry, electricity and magnetism, light and sound, Latin, Greek, and French, are the extra subjects for examination in which classes have been presented in this district within the last two years. Algebra and the physical branches included in this list are the extra subjects that have been most successfully taught. The pupils'

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singing, except in one or two schools, is as rude and harsh as can well be imagined; and the attempts that have been made at singing in parts have in most instances proved failures. Indeed, the general results of examination in this branch, and in some others contained in the above list, notably Latin and Greek, have been so meagre as to lead to the suspicion—of which one or two confirmations are within my knowledge—that some teachers have been induced to undertake instruction in these subjects without sufficient preparation for the task. I am convinced that the immense majority of the teaching body are quite incapable of descending to the pretence of teaching any subject of which they do not at least believe they possess a competent knowledge; yet, as on too many occasions during the last two years, public time that could ill be spared from pressing and important duties had to be frittered away in barren examinations on extra subjects, I think it necessary to suggest the placing of some check on what appears to be an incipient abuse. I can see no reason why teachers desirous of instructing classes in vocal music, drawing, Latin, Greek, or French should not have their competency to perform this duty tested and certified just as their competency to teach literary branches, mathematics, and physical science are tested, and certified by the Board of National Education, or by the Science and Art Department.

Evening schools.—Seven evening schools are in operation in this district. Reading in the lower lesson books and writing are on the whole taught in these schools with a moderate degree of efficiency; while in spelling and arithmetic—the other two subjects of the ordinary evening school programme—very trifling progress has been made. Illiterate adult pupils are naturally most anxious to learn to read and write. They would fain, the teachers say, devote the entire school time to the acquisition of these attainments, and can with difficulty be induced to give proper attention to spelling and ciphering. That such is to some extent the case, I have no doubt. Yet, experience shows that attendance at school for six hours a week during, commonly, six months in the year, is not sufficient to enable a pupil, especially an adult, to learn the course of arithmetic which the programme prescribes for any senior class, or to master any of the higher lesson books. Further, it is certain that a teacher who does his work diligently in a day school cannot possibly bring to the conduct of an evening school that fulness of mental and bodily vigour necessary for the efficient performance of the duty. After a careful consideration of the subject, I would take the liberty of suggesting—

1. That all evening schools should be kept open throughout the year. It may be objected that an attendance could not be secured during the summer months. But, as a matter of fact, some evening schools are in operation during the entire year; and, although the summer attendance is smaller than the winter, the former does not usually fall so low as to prevent payment of the teachers' salaries.

2. Every evening school should assemble either on four evenings in the week for two and a half hours each evening, or on five evenings for two hours each evening. One effect of such an arrangement, I believe, would be to improve the attendance by awakening and maintaining among the pupils a livelier interest in learning than they can possibly possess at present, when the long and numerous interruptions that take place in the operation of the school so repeatedly draw off their attention from their lessons.

3. The principal teacher of every evening school should be paid his class salary with results fees, and should not be engaged during the day

either in teaching or in any other occupation that would have the effect of lessening his efficiency in the evening school. *Appendix A.*

4. Every evening school should be attended by young persons of one sex only; and, it is unnecessary to add, the teacher should in each case be of the same sex as the pupils. District Inspectors' General Reports.

I have the honour to be, gentlemen, your obedient servant, *Mr. D. J. Roantree.*

D. J. ROANTREE.

The Secretaries, Education Office, Dublin.

GENERAL REPORT for 1876, by S. STARRIT, Esq., District 20—Centre, BALLINA. *Mr. S. Starrit.*

Ballina, March 1st, 1877.

GENTLEMEN,—I beg to submit the following general report for the year 1876–77.

I. *Description of the District.*—This district occupies the extreme north-western part of the province of Connaught, and comprises portions of the counties of Sligo and Mayo. It extends from Aughris Head, in Sligo, to Blacksod Point, in Mayo, a distance of eighty miles. It is bounded on the east by an artificial line, stretching from the Ox Mountains near Skreen to Sligo Bay; on the south by the Ox, Croaghmoyle, Nephin, and Nephinbeg Mountains; and on the west and north by the Atlantic Ocean. The Atlantic seaboard is deeply indented by Tullaghan, Blacksod, Broadhaven, and Killala Bays, with their numerous creeks and inlets. In the Sligo section a dreary monotonous expanse of bog extends along the northern base of the Ox Mountains. Here are situated three National schools, two of which are almost inaccessible. To these (Belville and Gleneasky), the Inspector can never make a "visit of surprise." The Mayo section comprehends nearly the whole of the baronies of Tirawley and Erris. More than half of this section consists of mountain, moor, and bog, occasionally chequered with a few patches of wretched cultivation. The general aspect of this portion is western, and its drainage is effected by the Owenmore and Glenamoy rivers and several smaller streams. The Glenamoy river runs between the Glenamoy National school and the public road, and as there is no bridge, and the river is generally high, the school is frequently inaccessible to children and Inspector. This school should be removed to the neighbourhood of the Glenamoy bridge, where it would be much more serviceable to the public, and accessible at all times to the Inspector. I have reason to believe that the landlord would grant a site there on easy terms. No "visit of surprise" can be made to this school while it occupies its present position. The general aspect of the rest of the district is northern, and its drainage is effected by the Easky, Moy, and Cloonaghmore rivers and numerous smaller streams. Throughout the district the chief occupations of the inhabitants are agriculture and fishing. In some localities along the coast the children are much employed in collecting seaweed; in other places they are frequently engaged in tending cattle; and in others in preparing and selling "turf." The area of the whole district is about 860 square miles—135 in Sligo and 725 in Mayo. The population amounts to about 74,000—18,500 in Sligo and 55,500 in Mayo.

II. *School Accommodation.*—The school-going population should be about 15,000. About 6,300 pupils were actually present in the schools

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of the district in the week ending 17th June, 1871. For the current year the average attendance—5,080—indicates that 13,000 children are now attending the National schools of this district with more or less regularity. To meet the educational wants there are now 103 National schools, affording floor space for 6,600 pupils. Unfortunately three of these—Ballymonnelly, Belmullet female, and Polatomas—have been inoperative during the whole year, thus depriving 300 children of a year's education (as they have no neighbouring school within their reach), and reducing the aggregate average attendance of the district by 150. The *schools* are very fairly distributed over the district, in accordance with the distribution of the population, but in twenty-five of them the accommodation is insufficient for the *average attendance*. In twelve of these the total accommodation is 591, whilst the aggregate average attendance is 810, thirty-seven per cent. above the accommodation. In one of these cases an excellent new house is in course of erection, in another the manager is providing for the immediate erection of a new house, and in two other cases the managers are likely to provide additional accommodation at an early date. Six of the remaining eight schools should be enlarged or replaced by superior houses. In four or five remote places new schools are needed, but in two of these places new houses have been built, and the managers are about to apply to the Commissioners for the usual grants. Since I got charge of the district (1st of June, 1874), two schools have been struck off; one of these ceased operation in consequence of new territorial arrangements in the locality, and inefficient teaching in the other reduced the attendance below the prescribed standard. In two cases old unsuitable houses have been exchanged for somewhat better houses. In six instances old houses have been replaced by new buildings of improved construction and on an enlarged scale. Four new schools have been taken into connexion. One house has been enlarged. In another case the manager has applied for aid to replace the existing school by a vested one. There is one applicant case before the Commissioners. In forty-five of the schools the floor space, furniture, apparatus, &c., are *very fair* or *good;* in thirty *fair;* and in twenty-eight *indifferent* or *bad*. About twenty-five—all in the last group—were originally intended for and occupied as dwelling-houses, and hence they are faulty in construction, and in many respects unsuitable for school purposes. When the educational wants of a locality begin to be felt, and local means are insufficient to provide for the erection of a suitable schoolhouse, the usual course is to rent or purchase the best available house in the place, furnish it with some desks and forms, open it as a school, and apply for the usual grants. In consequence of the urgent necessity of the case, and the difficulty or present impossibility of providing a better house, the application is generally granted. In this way many schools have been established which are now quite inadequate and unsuitable for the wants of the localities in which they exist. It is well that recent regulations increase the difficulty of obtaining grants in such cases. In most schools of this description and in some others the means of lighting and ventilation are bad, in some the means of heating are insufficient, and in a few the senior pupils are permanently injured by writing at ill-constructed desks in badly-lighted school-rooms. To a few of these cases I intended to devote some attention during the coming year, but this duty must now devolve on my successor. One-third of the schools are provided with out-offices and play-grounds. In one-sixth of them the supply of school requisites is generally poor or inadequate, and in all the others it is fair or sufficient.

Besides the National schools there are about twenty others within the limits of this district, with a probable aggregate attendance of 400 pupils These are Presbyterian Mission, Church Education Society, Parochial, Endowed, and Private Schools.

III. *Attendance.*—In 1872 the total average attendance was 4,145; it is now 5,080. This gives an increase of 24 per cent. in four years. Yet, though this shows fair progress for the time, the average attendance is very far from what it should be. This is attributable to various causes, of which the following may be mentioned here:—(1.) *The sparseness of the population.*—In a thinly-inhabited country there must be many isolated dwellings and even small villages at long distances from any school. In some cases the distances may be so great as effectually to prevent the school attendance of the children, and in others the difficulties of the road, and the severity of the weather at certain seasons, either prevent the attendance or render it extremely irregular. The barony of Erris has all these difficulties to contend with in its educational progress; but notwithstanding these drawbacks, it is progressing, for in 1841, of the population five years old and upwards, 86·2 per cent. were unable to read or write, whilst in 1871 the per-centage was 73·8. It embraces an area of 360 square miles, has a population of 49 to the square mile, and is furnished with 22 schools to educate its people. Each of these schools serves on the average for an area of $16\frac{1}{2}$ square miles, or a circle of $4\frac{1}{2}$ miles in radius. Many of the children walk long distances to school, and that by paths almost impassable, and frequently exposed to furious winds, and drenching rains from the Atlantic. (2.) *Indifference of the community.*—In some places there are numerous parents, and in most places there are some, so intensely and culpably careless about the education of their children, that they seldom or never send them to school. In many portions of this district the parents are so grossly ignorant that they cannot comprehend the necessity of education, nor appreciate its importance. In some places a few pupils pay weekly school-fees, but in most of the schools the education is really gratuitous. This is another cause of the indifference of the parents and of the low value they place on education. The children are frequently detained at home quite unnecessarily, and are often permitted to absent themselves whenever they desire to do so. Did the teachers enforce the payment of moderate school-fees, *quarterly and in advance*, their services would be more valued, the character of the attendance improved, home lessons more carefully prepared, their own interests advanced, and the public good promoted. The landlords and other persons of position in the district manifest just as much indifference in the progress of elementary education as the parents themselves. The Right Honorable the Earl of Arran contributes liberally to the support of the schools on his estate, and a few other landlords contribute a little on the condition that the children of their tenantry are taught gratuitously. From this class, with these exceptions, the schools receive neither encouragement nor support. Even the majority of the managers are surprisingly unconcerned in the prosperity and efficiency of their schools. Some schools are very rarely visited by the managers. Very many of them are more frequently visited by the inspector. One manager has five schools, and another six; yet neither of them entered even one of these schools at any of the thirty-two results examinations I held in them. Though this is true, not only of these, but of many others, yet there are some excellent managers in the district—gentlemen who give much of their time and money to advance the well-being of their schools. I may here mention

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an example of the amount of good that can be done by an energetic and conscientious manager. In the year 1871 the parish of Attymass, with an area of 17½ square miles, and a population of 2,741, had only one school within its limits, and that school almost on the very boundary, and drawing a considerable portion of its pupils from the adjoining parish, capable of accommodating only 36 children, having an average attendance of 45, and under an inefficient teacher. With these facts before us, we cannot be surprised to find in the Census returns for that year that 2,251 of the population were wholly illiterate. To remedy this lamentable deficiency, a second school (with two teachers) was established in November, 1872, and in consequence of the indefatigable exertions of the present parish priest, a third school (with two teachers) —an excellent one—was established in July last, and he has just completed and opened a fourth (with two teachers) in a remote part of the parish. In addition to all this, the original school has been enlarged, and he contemplates the erection of another at an early date. Not only has he erected school-houses, but he has induced the parents to send their children to them, and he has done all in his power to secure the services of efficient teachers. Instead of one miserable school, with an average attendance of 45, he has three schools in operation, with an average attendance of 191, and he expects an average attendance of 70 at the school just opened. Did all managers exert themselves in this way, primary education would make rapid progress, and crime and pauperism would be reduced. (3.) *Home employment of children.*—In consequence of the scarcity of labourers and the indigence or cupidity of parents, the children are frequently kept at home to assist in field labour, in tending cattle, in collecting seaweed, and in various other employments and pursuits. (4.) *Inefficient teaching.*—Several schools in this district owe their low, irregular, and unpunctual attendance to their worthless character. Honest efficient teaching and kindly intercourse with the parents increase the attendance, and improve it in regularity and punctuality, and these in their turn, promote the efficiency and prosperity of the school.

IV. *Teachers, &c.*—In order to form a just estimate of the educational progress of any district, we should be fairly acquainted, not only with its physical and industrial character, its previous educational status, the extent and quality of its school accommodation, and the nature of the attendance, commanded by its schools, but the number, qualifications, and efficiency of its teachers, and the amount of work, they may be fairly expected to perform. (1). *Number of Teachers.*—The following table gives the present teaching staff, with the exception of one junior literary assistant and eight workmistresses :—

Class.	Principals.		Assistants.		Monitors.	
	M.	F.	M.	F.	M.	F.
I., . .	3	1	–	1	–	–
II., . .	11	7	1	1	11	15
III., . .	42	22	5	20	2	3
Unclassed, . .	4	5	1	–	–	–
Totals, . .	60	35	7	22	13	18

There are now vacancies for six principal and four assistant teachers. The managers experience great difficulty in obtaining suitable teachers for their schools when vacancies occur. They will not avail themselves of the services of recently-trained teachers, and very few untrained

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teachers can be found qualified to be put in charge of the more important schools. Hence, three or four such schools here have been long vacant. Many of the schools occupy remote positions, where it is almost impossible to get suitable lodgings within reasonable walking distances, and in the great majority the local support is so trifling, that no properly-qualified teachers could be induced to accept them. The monitorial staff should have been able to supply all vacancies occurring in the district up to the present time, but it has failed in this. This staff is now, in consequence of restrictive regulations (recently removed), reduced to a little more than half its strength two years ago; but it can be made up in a few months. Here I may remark that though the *attendance* in many schools is quite sufficient, yet in some the accommodation, and in others the qualifications of the teachers, would not warrant the appointment of monitors. During the last three years 9 male and 13 female monitors stood their final examination, but only 5 males and 5 females were successful in obtaining a class. This appears to have arisen from gross negligence or inefficiency on the part of their teachers. Besides those examined, several, conscious of their inability to pass, absented themselves from the final examinations. In one case, as I have recently ascertained, the teacher advised the monitor to absent himself, though twice summoned, as he knew him to be deficient in a certain part of the prescribed course. The monitor was dismissed in consequence, but as soon as the teacher believed that the deficiency was removed he advanced, through the manager, a claim for continuance of salary to the monitor, hoping to have him then examined in order that he himself might receive the gratuity for his instruction. Of 44 monitors that left the service since 1st June, 1874, only 13 have become National teachers, but it is probable that 8 more may yet become teachers. Of 29 *new* teachers appointed during the same time only 14 had been monitors. From these facts it appears that in this district the employment of paid monitors has only very imperfectly achieved its object—the preparation of the best pupils in our schools "to become efficient teachers." Some resign for other positions more lucrative and some are so badly instructed that they fail at their final examination and relinquish the service. (2.) *Qualifications of Teachers.*—From the foregoing tabular statement it appears that of 124 teachers now employed in the district only 23 are above third class. Very many of these third class teachers, though fairly possessed of the necessary amount of knowledge when they were appointed and classed are no longer in possession of it. Very few indeed devote any time to study after obtaining their classification, so that instead of advancing in knowledge and in the art of communicating it, they are really retrograding. I am confident that many of these teachers would fail if subjected anew to examination. And the same is undoubtedly true of some in the higher classes. Of 124 teachers now here only 33 are trained. This is another serious obstacle to the progress of education in most places. Here it must retard it very much. Surely the teacher should not only possess an adequate amount of knowledge but he should know how to communicate it in the most expeditious way. As the Commissioners stated in their report for 1847:—"It is vain to expect that the National schools, established in all parts of Ireland, will ever be effectively conducted, or the art of communicating knowledge materially improved, until a sufficient number of well paid masters and mistresses can be supplied, thoroughly qualified, by previous training, to undertake the office of teachers, and feeling a zealous interest in promoting the great objects of their profession." Since that date great improvement has

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been made in the payment and qualifications of teachers though they are still too low. (3.) *Efficiency of the Teachers.*—When the low qualifications of the teachers, the yearly amount of work prescribed for the pupils, the irregular character of the attendance, and the numerous other obstacles to educational progress, are duly considered, it need not surprise us to find that the general state of the schools is comparatively low. There are a few indolent and worthless teachers in the district but the great majority discharge their duties to the best of their ability. There are now few schools in which I have reason to suspect that the school accounts are dishonestly kept. I have detected false entries in a considerable number of schools. Some of these were gross cases and they have been justly and severely dealt with. At present there are very few schools, if any, in which systematic falsification is practised, but there are some that need careful supervision. Just now the most prevalent form is to keep the school clock slow and delay the marking of the rolls to give time for the assembling of all late-comers.

V. *Proficiency.*—The general proficiency of the schools is comparatively low. The per-centage of passes made by the pupils examined during the year is 61·6 for the whole district. This is considerably lower than the per-centage for 1874. This falling-off is easily accounted for. Half the schools were examined in 1875 after an interval of *eleven* months from the previous examination and this year nine-tenths of them were examined after another interval of *eleven* months. Besides this shortening of the results period the attendance is so irregular that one-half of the examinees attend only from 90 to 120 days, and a large proportion of them are in the higher classes. Again very many pupils in their progress from class to class have merely obtained bare passes in reading, writing, and arithmetic, and thus their promotion has been too rapid. Hence when such pupils are presented for examination in the higher classes they frequently fail in some of these branches and rarely pass in others. Then there are numerous schools here so overcrowded during certain months as to render efficient teaching impossible. This overcrowding is due to the attendance at these times of young persons who are engaged at other times in field labour. Very few of these qualify for examination and their presence, though it increases the general average, materially retards the progress of the other pupils. Means should be adopted to prevent this overcrowding of the schools. Unless a school is supplied with an adequate staff of properly qualified, zealous, and efficient teachers; has suitable accommodation; and the majority of its pupils attend upwards of 120 days in the year, it is vain to expect it to exhibit really satisfactory progress and proficiency. The raising of the minimum attendances from 90 to 100 for the coming year is sure to produce improved results. (1.) *Reading.*—The general proficiency in this branch is fair. The chief defects are rapidity and indistinctness of utterance, and in some localities the prevalence of provincialisms. Expressive reading is very seldom heard, because the pupils are but very imperfectly acquainted with the language and matter of the reading books. Before the teacher permits a class to engage in reading a new lesson he should explain it carefully to them and then read it for their imitation. All glaring provincialisms and defects of utterance should be constantly noticed and corrected. In some schools the failure in this branch is due to defective discipline and bad organization. (2.) *Spelling.*—In the vast majority of schools oral spelling is good but in many writing from dictation is bad or only tolerable. Now, ability to write words correctly is the chief, if not the only, object of spelling, and hence it is principally through writing that it should be

taught. In many schools quite too much time is devoted to oral spelling, especially of single words, and phrase-spelling and dictation are comparatively neglected. Frequently the dictation exercise is imperfectly corrected and little or no care taken to point out the sources of errors arising from similarity of sound with difference of spelling, similarity of spelling with difference of sound, silence of letters, unusual sounds of letters, &c. Hence such errors as the following taken from the dictation exercises of fourth and higher classes in one large school:—*seam* for *seem*, *bread* for *bred*, *shoes* for *shows*, *chearing* for *cheering*, *their* for *there*, &c. Provincialisms, mispronunciations, and imperfect comprehension of the language contribute considerably to orthographical errors, as *togather* for *together*, *plins* for *plains*, *sense* for *since*, *parliment*, for *parliament*, *differcult* for *difficult*, &c. Writing from dictation requires considerable freedom of hand in order that time may not be wasted. Transcription is a powerful auxiliary in teaching spelling and ought to be systematically practised by all classes. (3.) *Writing.*—The general proficiency in this branch is fair and improving, but there are still a considerable number of schools in which the writing is very poor or bad. In a few schools it is very well taught. (4.) *Arithmetic.*—This subject is successfully taught in the junior classes but the failures in the senior classes are now very numerous and in many cases the written exercises are performed in a slovenly manner. Theoretical arithmetic is not receiving sufficient attention. This might be remedied by introducing some theoretical questions into the exercises set for Fifth and Sixth classes. (5.) *Grammar.*—The proficiency in this subject is low but improving. In many schools the pupils can repeat the definitions and rules fairly enough but in few are they able to apply them. (6.) *Geography.*—The proficiency in this subject is just as low as in grammar though it requires less mental effort and is more popular. (7.) *Agricultural Class Book.*—But little taught in this district. *Book-Keeping* is occasionally taught as an alternative subject. (8.) *Needlework* is fairly attended to. (9.) *Extra Branches.*—Geometry, Mensuration, and Algebra are taught with tolerable success in a few schools.

Mr. S. Starrit.

I am, gentlemen, your obedient servant,

S. Starrit, District Inspector.

The Secretaries, Education Office, Dublin.

General Report for 1876, by A. S. Cowley, Esq., District 24—Centre, Bailieborough.

Mr. A. S Cowley.

My Lords and Gentlemen,—I have the honour of submitting to you this my General Report upon the present state of the Bailieborough District, which has been in my charge since the month of July, 1873.

In this report I purpose asking your attention to observations upon:—

I. The general proficiency in the obligatory and extra branches of the school programme.

II. The influence of the Model school upon the education of its own pupils, and upon the district generally.

III. The present application of the results system.

I. *General proficiency in the various branches of the school programme.*—To begin with *Reading* as the most important. This subject, so far as

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its mechanical aspect is concerned, is decidedly well taught in the district; and I believe the general proficiency to be considerably higher than before the introduction of the results system. But while the reading is in most cases fluent, accurate, and distinct, in the majority of schools it is sadly wanting in intelligence. In point of fact many of the teachers are quite ignorant of the art of explanation, and when set to examine a class upon the subject-matter of a lesson are positively unable to ask one single question that calls for more than a mere parrot-like repetition of the words of the book in reply. Such teachers if pressed to ascertain whether the pupils understand the meaning of the words they are using almost invariably take refuge in the columns at the head of the lesson.

The teachers content themselves with giving their pupils a vague idea of the denotation of a word, but they never attempt any explanation of its connotation; and consequently the ideas, or rather I should say the concepts, of the pupils are both obscure and indistinct. The deficiency in this respect appears to be so marked as to require some special arrangements in the training establishment to counteract its ill effects.

The repetition of poetry is in too many cases hurried, inaccurate, and indistinct; but in some schools of this district, and notably in those taught by former pupils of the Model schools, it is remarkably well done, in one or two almost rising to the dignity of recitation.

The proficiency in spelling, both written and oral, is generally of a satisfactory character; but in too many schools the junior pupils are not accustomed to repeat a clause before commencing to spell it. The teachers of these schools fancy this is phrase-spelling; forgetting that the previous repetition of the words is the *sole* object of giving more than one, in order to teach the pupils not only to spell, but to group their words properly, to exercise their memory, and to prepare them for writing from dictation.

Writing.—Writing is much better taught in this district than in any other of which I have had charge. This is due mainly to the influence of the Model School, in which the Vere Foster system has been taught with a success not even approached by any other school in the three kingdoms. The prizes gained by Bailieborough pupils at Vere Foster's competitions, have been greater than the united prizes of the only two schools which, except itself, are at all distinguished for their success at these competitions.

Arithmetic.—In this subject the number of passes falls far short of those obtained in reading, spelling, and writing. We might expect this in schools taught by females; but with boys taught by men, the amount of attention bestowed upon arithmetic is generally greater than that devoted to any other subject; and yet in such schools the results in arithmetic, especially of the senior classes, are considerably less than those obtained in reading, spelling, and writing. In reading and writing, an Inspector has considerable freedom of individual judgment; in spelling, the number of mistakes to be allowed is laid down for him; in senior arithmetic, he merely marks the work done from printed cards. The marked disparity, so far as this district is concerned, between the results obtained for reading, writing, and spelling, on the one hand, and those gained in arithmetic on the other, must be due to one of two causes—either my individual judgment of the reading and writing, and the official regulations as regards spelling, err on the side of leniency; or the questions in arithmetic have the contrary defect. If this district is singular in this respect, it is my judgment as regards reading, and writing, and the official regulations as to the number of

mistakes to be allowed in spelling, that are wrong. If the same is found to be the case in most districts, it is the arithmetical questions that are too difficult; and the cards should be modified accordingly.

Before leaving arithmetic I must allude to notation, in which subsidiary subject the answering is generally defective. In this subject I examine orally, and I am often told that the pupils could put down the figures on slates, though they are unable to say in words what figures they ought to use. If, the moment such an objection is raised, an examiner has recourse to one slate and a different number for each pupil, it will be generally found that the written answering is slightly lower than the oral. The amount of imposition practised upon teachers who are so foolish as not to give every pupil a different question, is something astonishing. In notation it reaches its maximum, and it can be most readily checkmated by requiring oral instead of written answers.

Grammar and Geography.—In these two subjects the general proficiency, when measured by the requirements of the programme, is decidedly poor; but of both subjects the pupils usually know as much as is likely to be of use to them in after life.

I believe it was the almost unanimous opinion of Head and District Inspectors, that geography and grammar should not be taught to third class pupils. I am satisfied that it would be a great improvement to lower the programme one degree for each class;—the present knowledge of grammar and geography set down for sixth class, to be expected only of those pupils who have already passed once in that class; the present knowledge required of pupils in the second stage of fifth class, to be transferred to the sixth class, and so on downwards, removing these subjects entirely from the curriculum of the third class.

Needlework.—The proficiency in plain sewing and knitting is on the whole fair; but very little attention is given to the principles of cutting out.

Extra Subjects.—In some schools a respectable knowledge of algebra, geometry, and mensuration is imparted to a few of the senior pupils. In one or two a smattering of Latin, Greek, and French, is given to one or two of the most advanced pupils; but in these schools I generally find that the junior classes have suffered, and I think that the introduction of these subjects into a system of primary education, is only rendered expedient by the present unsatisfactory state of intermediate education in Ireland.

II. *The Model School.*—The Bailieborough Model School is an institution of which the adherents of the National system of education have every right to be proud. It commands a large and steadily increasing attendance, drawn from the classes for whom the National system of education was originally intended; and each religious denomination is adequately represented by its due proportion of pupils. The attendance for the month of February last, was 324, a greater number I believe than the Bailieborough Model School ever reached before. The school at present numbers on its rolls:—

Church of Ireland, ...	75
Presbyterians, ...	83
Roman Catholics, ...	248
Total, . .	406

The general proficiency of the pupils in the ordinary subjects of the school programme, can be seen from the amount of results obtained at

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the annual examinations; but the real value of the school will be apparent from its success in other directions.

At the Vere Foster competitions it stands first. In 1873, Mr. Foster writes:—"The pupils of Bailieborough Model School, who have competed most numerously, have been pre-eminently successful in the gaining of my prizes for drawing as well as for penmanship."

In 1874 Bailieborough receives like honourable mention, and its pupils were awarded 40 prizes.

In 1875 they gained 42 prizes. The pupils of the Royal Academical Institution and of the Methodist College at Belfast, both referred to by Mr. Foster, gained 12 prizes each.

In 1876, the Bailieborough pupils gained 40 prizes.

The drawing classes, in connexion with the Department of Science and Art, have been highly successful every year; the school generally taking second or third place amongst Irish classes.

The science classes in connexion with the same Department, have been even more successful. These were first opened in 1867, when 73 pupils passed, 7 of them obtaining first class.

In 1868, 52 pupils passed in acoustics, light, and heat; 22 of them taking first class. No other class in Great Britain and Ireland gained more than three first class places. In addition to this the first, second, and third prizes were awarded to Bailieborough pupils, namely:—a certificate for the gold medal; the gold medal, and the silver medal.

In 1869, 81 candidates were successful, 20 taking first class. Two pupils took first class "honors," their answering ranking second and third in the United Kingdom.

In 1870, 68 were successful, 27 taking first class, and 1 the silver medal.

Owing to changes made by the Department, the classes were discontinued until 1875; in which year, 80 candidates were successful, no less than 57 taking first class. According to the regulations of the Department, this was looked upon as a new class, and its pupils could not compete for medals. The Science and Art Report for the year however, affords us a means of comparing the answering in Bailieborough with that of the rest of the schools in connexion with the Department.

Per-centage of pupils who obtained first class in mathematics:—

In Bailieboro'.	In all other Schools of the Three Kingdoms.
47	15

Per-centage of pupils who obtained first class in electricity and magnetism:—

	In Bailieborough.	In all other Schools.
Elementary Stage,	62	49
Advanced Stage,	50	31

Last year 59 candidates were successful, 27 taking first class. The Science and Art Report has not yet been issued, so that I am not able to compare the results with those obtained in other schools.

These distinctions at Vere Foster's competitions, at the art classes, and at the science classes, afford proof of the value of the instruction imparted in the Bailieborough Model School; but there is yet another fact still more conclusive of its value as an instrument of primary education.

Since I took charge of this district in 1873, no less than 36 pupils of the Bailieborough Model School have been appointed teachers. Six of these were successful in obtaining assistantships in model schools at

the competitive examinations. Fifteen are principal teachers, and fifteen are assistants in ordinary schools.

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III. The results system has upon the whole exercised a beneficial effect upon the general education of the pupils of our National schools, but in several important points its method of application is susceptible of improvement.

In the first place, why should a certain number of attendances be insisted upon in order to entitle a teacher to present a pupil for results, and if this certain number of attendances must be insisted upon, why should they not be made compulsory? There appear to me to be two notions at the bottom of this requisition; first, that it is desirable to use some means of inducing the pupils to be more regular in attendance; and secondly, that a certain number of attendances should be required as evidence that the pupil has been instructed in that particular school, and not elsewhere. Now with regard to the first of these ideas, it is undoubtedly very desirable to induce the pupils to be more regular in attendance, but this should not be done at the teacher's expense. With regard to the second, in cases where pupils have attended more than one school, it would be very easy to divide the results fees earned by them between their several teachers. But the general case that has to be dealt with, is that of children, who have made less than the required number of attendances in one National school, and who have been working at home during the remainder of the year.

It very often happens that a pupil, who has made 88 or 89 attendances during the last four months of the results year, would make better answering than one who has made 120 or 130 attendances, most of them at the commencement of the year. What has the teacher done, that he should not be paid in the one case as well as in the other?

The present regulations are too inelastic, and require modification. This is desirable, not only to ensure the teacher payment for the full results of his instruction; but to prevent the tendency to neglect the pupils who are irregular in attendance; to secure to them the advantages of an annual examination by the Inspector; and to remove from the teachers the temptation, unfortunately still sometimes yielded to, of turning a 98 or 99 days' attendance into 100.

The position and prospects of the teachers are considerably brighter than they were at the date of my last general report; and on the whole, the general standing of primary education has been improved.

Much, however, still remains to be done; and in my opinion, sooner or later, compulsory attendance, and local taxation, will have to be resorted to.

I have the honour to be, my lords and gentlemen,

Your obedient servant,

ARTHUR SCOTT COWLEY, District Inspector.

To the Commissioners of National Education.

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Mr. James Gillic.

GENERAL REPORT for 1876, by JAMES GILLIC, Esq., District 30—Centre, Dublin.

Dublin, March 18, 1877.

GENTLEMEN,—In accordance with the instructions contained in your letter of the 8th ult., I beg to submit the following general report on the state of the schools in the North Dublin district for the year 1876.

The district comprises that part of the city of Dublin lying north of the Liffey, with portions of the counties of Dublin and Meath, and to it also belong the West Dublin Male, Female, Infant, and Evening Model Schools, which are situated in School-street, south of the river.

All classes of schools are represented in this district, which contained 110 in 1876, classed as follows :—

5 Model School Departments.
2 Convent Schools.
2 Poor Law Union Schools.
2 Lunatic Asylum Schools.
3 Prison Schools.
8 Evening Schools (one being attached to th Albert Model Farm).
88 Ordinary Day Schools.

Of the entire number, 56 are city or suburban schools, 38 are in country towns or villages, 15 are completely rural, and 1 is situated on the Island of Lambay.

The average attendance is very various, ranging from 13, which is the lowest I met with in any school, to the large number of 780 attained in King's Inns-street Convent School.

The school-houses have been much improved of late, and there are now only two thatched school-houses in this district, one being the Lambay Island School, which I reported in the course of the year, as being quite unfit for school purposes.

Within the last three or four years several managers have done much to effect improvements. Rev. Canon Rooney built a very pretty school-house containing two school-rooms, two entrance halls, and suitable offices, at Raheny. He also erected a comfortable residence for the teacher at Clonshough, and enlarged the dwelling accommodation at Artane.

Rev. N. O'Farrell, within the same period, built a remarkably fine house in Lusk, containing two spacious well-lighted school-rooms, with apartments for two teachers.

A new school-house, with a residence for the teacher, was built at Loughshinny, by Rev. F. O'Carroll, who also enlarged the Rush school-house. In Dublin the Josephian Infant School was lately removed to a new and spacious school-room ; and at St. Francis Xavier's, the manager, Rev. J. Gaffney, has a very fine teacher's residence almost completed. I should add that all these gratifying improvements were effected without public aid.

Increased experience of the results system confirms me in the belief, that it is the best means that could be devised for improving the character of Irish National education. It gives the teacher a direct personal interest in the progress of his pupils, and while human nature remains as it is, all men and women must be influenced by this. When I compare the proficiency of children in relation to their years at the present time, with what it used to be, the contrast is very striking. I have heard it remarked that the pupils were unduly forced on, and that the teaching partook of the character of "cram," and what may give colour to this, is the fact that in the first year of the system, the

teachers presented pupils in classes very advanced for their years, and indeed, I lately met a little girl of ten years working hard at decimals, preparing for examination in second stage of fifth class.

This, however, is rapidly righting itself.

I shall now proceed to report in detail on the various branches of instruction comprised in our school course.

Reading is carefully taught; and it may be said that failures in this branch are confined to the first and second classes.

I cannot report much progress in knowledge of subject-matter of lessons, and indeed there is so little time to lecture on this branch that the teacher's treatment of it is generally limited to asking a few questions at the end of the reading lesson.

Recitation of poetry is a favourite exercise with the pupils, and I am glad to see their taste so far developed, that generally each pupil selects for himself the pieces to be learned for the examination.

The practice of transcription has done much to improve the spelling, besides conferring another benefit, to which I shall presently refer. Formerly, written spelling was only taught by the practice of writing from dictation, which partakes more of the character of an examination than of a lesson, but now the eye is trained by copying sentences correctly spelled, and I find marked progress the result; and I must here observe how very inexpert many teachers are in the simple process of dictating a sentence. Instead of reading the sentence once over, that the writers may perceive the context, and then giving out a few words once—for I find once is quite sufficient—they read a line or two, then repeat it, often five or six times, calling out now and then, "All who are down to such a word, hold up hands," so that a great deal of time is wasted, and no two pupils complete the exercise at the same moment. I find that the correct method takes about one-fourth of the time of the other, and at the same time ensures greater accuracy of spelling.

Another good result which the practice of transcription has produced is the increased rate of progress, and spread of proficiency in penmanship. In saying so, however, I allude to expertness in the use of the pen rather than to increased facility in copying head-lines. I well remember not long ago, finding pupils who could execute almost faultless imitations of a head-line, fail utterly when asked to write a few lines of poetry from memory, or answer a question on paper. Indeed I have seen such evince considerable awkwardness in heading an exercise with their name, school, and class, and it is well known that the filling of the docket used to be not the least difficult part of the monitor's examination.

Of course, the great importance of arithmetic is duly recognised, and special attention is devoted to it, yet it will not be considered surprising that more failures occur in this than in other subjects. The teachers say that it is difficult in a single year to instruct a pupil successfully in all the compound rules and reduction, which our complicated system of weights and measures, &c., renders so wide a range.

This is true, and it is generally in fourth class the first real difficulties in arithmetic arise, but this might be obviated by adding on to the third class programme, subtraction, multiplication, and division of money, of course at the expense of other subjects to which I shall afterwards refer. The transition from fourth class to junior stage of fifth is apparently easy, practice and proportion being only added, with notation and numeration of decimals as a subhead; but as a matter of fact, in the very best schools the failures have been numerous in this stage. Perhaps then, the knowledge of the notation and numeration of decimals—and very little remains to be known about decimals after that—might be reserved

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exclusively for the second stage of fifth class, as this requirement is to be found in the programme for both stages.

Whilst advocating or suggesting these modifications however, I must observe, in order to show how much is attainable, that in the King's Inns-street Convent National School last June, I examined 17 girls in the second year's course of sixth class, the highest school standard, of whom 7 obtained mark No. 1; 6 mark No. 2, and only 4 failed, and not badly. Of those who obtained the highest mark 5 were under fourteen years of age, 3 being only twelve, and 2 only thirteen years old, and one of the latter worked her six questions not only with perfect accuracy, but in a style so complete as regards writing, figures, and general form, that it was really a pleasure to look at her paper. Certainly, arithmetical knowledge has been advanced in a striking degree, and in considering failures it must be kept in mind that not only is the programme high, but the questions for examination are of a different class from those given in the ordinary treatises on arithmetic, partaking more of the character of problems, and drawing out the reasoning powers of the worker.

In recommending an increase of three rules to third class programme, I would propose to omit grammar and geography from it, or if not both certainly grammar. A great deal of time is spent by third class pupils in learning to distinguish the parts of speech which might be more profitably devoted to other subjects. Geography also might be omitted from the programme of this class, and time would thus be gained for the purpose of thoroughly grounding the pupils in the fundamental branches of instruction at the age and the time of school life when it is of such importance to do so.

Theoretical agriculture, the next subject on the programme, never was popular with teachers or pupils, and has been generally superseded by book-keeping. The latter branch is carefully taught, and in many instances the sets are neatly copied, and the principles fairly understood. This copying of accounts is an excellent exercise in the use of the pen.

Needlework is taught in all female schools, or mixed schools under female teachers, and much progress has been made of late years. Failures are very rare, and in some schools, in my judgment, the art is carried to perfection.

Fancy work, such as crochet, &c., has disappeared, and the instruction is strictly confined to the requirements of the programme. Cutting out is practised by senior fifth and sixth classes, and fair proficiency attained.

The extra branches taught in the schools of this district are vocal music, drawing, drafting, use of sewing machine, Latin, French, geometry, mensuration, algebra, physical geography, zoology, and animal physiology. In singing failures are rare, but drawing is less successfully taught. "Drafting," or the method of cutting out according to the Board's Manual of Needlework, is taught in a few schools, as is the use of the sewing machine, and to a greater extent. Seven schools have French classes, one of which was examined during the present results year on the third year course. The pronunciation is, of course, the great difficulty, and certainly correctness is difficult of attainment, but the translation into English is generally fair, as is also the proficiency in grammar.

All the pupils of the class examined on third year course were able to translate "Athalie," and to express easy English phrases in French. They were also sufficiently familiar with the pronunciation to understand the meaning of easy phrases, dictated to them in French. The language of Chambaud's "Fables Choisies" is much too idiomatic and difficult for pupils of the second year.

In geometry, mensuration, and algebra very little has been attempted,

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and only one boy was presented in the course of the year for examination in the second stage. Two classes were presented for examination in physical geography, and one in zoology and animal physiology, and the proficiency in these three branches was fair. No pupils were sufficiently prepared for examination in Latin.

Mr. James Gillic.

I am of opinion with regard to the extra subjects on our programme that very few of them should be permitted to be taught within school-hours. Of course the regulation requiring passes in reading, spelling, writing, and arithmetic to qualify for payment for a pass in an extra subject is a great safeguard, but I think that the restriction in the case of classics and French should be extended to most of the extras. I would also suggest that in the case of subjects not included in the programme of examination for teachers, such as classics and French, the persons giving instruction in such extra branches should be required to submit to a qualification test.

Of the two model schools in my district, West Dublin and Glasnevin, I need not refer to the former, as it is specially reported upon. Glasnevin Model School contains but two departments, male and female, there being no infant school. The boys' school, from causes now needless to recapitulate, had been declining for some years in attendance, but since the appointment of the present teacher in June last year, it has made such progress as leads me to hope that after some time it will be a flourishing institution. It has now 37 pupils on rolls, as against 15 a year since, and the average attendance has increased from 7 during the same period to 30. Advantages in the shape of instruction in extra branches are held out to the pupils, and a Latin class has been formed, and everything points to the resuscitation and ultimate success of the school. The female department is very efficiently conducted, and the large number in the advanced classes, indicating a desire on the part of the pupils to complete their course in the school, affords proof of their appreciation of the education received there.

The two convent schools under my inspection are largely attended, and the care bestowed by the nuns on the instruction of their pupils, is too well known to render it necessary for me to allude to it. Without making invidious comparisons, however, I wish to remark that the King's Inns-street Convent National School is the best National School of any class I have ever examined.

Of the two Poor Law Union Schools in this district, one, Balrothery, is a small one, having an average of 16, and is taught by a female teacher. The North Dublin has three departments, male, female, and infant, a staff of 7 teachers, and an average of 220 pupils. Both schools are well conducted, and the guardians of both pay results fees to the teachers, although one is in a non-contributory union.

In the Richmond District Lunatic Asylum for the counties of Dublin, Wicklow, and Louth, two schools, male and female, are held. The inmates practise reading, writing, writing from dictation, and arithmetic daily, but make no progress in the latter branch. Some of them, chiefly male patients, read with great taste and expression, and excel in penmanship and orthography.

The Richmond Penitentiary School is attended by female prisoners undergoing short terms of imprisonment, and I must say that it is very hard for a teacher to make any impression on them. At my last inspection one woman examined was undergoing her thirty-first, and another her fifty-second term of imprisonment.

In the Mountjoy Male Convict Prison prisoners sentenced to penal servitude are detained for twelve months, during eight of which they undergo

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solitary confinement, before being sent to Spike Island. The school here is well conducted, and it is not uncommon to find convicts who were illiterate on entering, able to read and write fairly before leaving. They always impress me with the belief that they are animated with a strong desire to make the best of their time at school, and it always strikes me that they are extremely anxious, some of them nervously so, to acquit themselves well at their examination.

In the Mountjoy Female Prison, the full term of penal servitude is undergone, and women sentenced to various periods, from the shortest term to that of life attend school. Any progress made here may be said to be confined to reading and writing, and indeed much more cannot be expected, as the unfortunate prisoners in many instances exhibit the characters of children, being giddy, petulant, and wayward, and by no means manifest the desire for improvement so evident amongst the male convicts.

Of the eight evening schools one has not been in operation for some time, but the rest are working fairly. The West Dublin is a useful evening school, so is the Josephian Female; and in Portrane, a completely rural school, far away from town or village, 38 pupils were presented for examination, nearly all farm labourers. To this class of schools also belongs the Albert Farm School, which is open from 4 P.M. to 7.30 P.M. daily, and where the agricultural pupils of the institution receive an excellent literary education from a highly qualified and skilful teacher.

I am, gentlemen, your obedient servant,

J. GILLIC, District Inspector.

Mr. C. W. Dugan.

GENERAL REPORT for 1876, by C. W. DUGAN, Esq., M.A., District 36—Centre, Parsonstown.

GENTLEMEN,—In obedience to instruction in your letter dated 8th ultimo, I have the honour to present the following as my General Report on the Schools in my district for 1876.

This district chiefly comprises portions of King's county and Tipperary with portions of two outlying parishes, one in county Galway, the other in Queen's county.

Its extent may be estimated from the lengths of two straight lines passing through the official centre at Parsonstown, one running nearly due N. and S. of 35 miles, the other N.E to S.W., of about 40 miles.

The area is about 650 square miles with a population in round numbers of 70,000, of which 31,000 belong to King's county and 38,000 to Tipperary.

The entire district is almost purely agricultural, the great bulk of the people being either possessors or workers of land; a large proportion of the poorer classes are also employed at certain seasons in cutting and preparing turf especially in the extensive tracts of bog which cover a large portion of the northern half of the district.

There are 109 separate schools under my inspection, viz., 3 Model, 7 Poor Law Union, 4 Convent, 2 Gaol, and 93 ordinary National Schools. The average distance of each from my official centre is 14·3 miles, 24 schools are distant 20 miles and upwards.

As there are no facilities for visiting any of the schools either by

railway or other public conveyance all the travelling work must be done by means of private post cars. These are most frequently ill-appointed one-horse outside cars. An Inspector after getting over such a day's work, as travelling in this way his average journey of 28 miles, and examining a school for results, finds himself, either at home or in his hotel, pretty wearied and jaded, and certainly unfitted either in mind or body for further serious occupation on that day. One so circumstanced cannot but often feel regret at being unable to continue his studies, or even to keep up that knowledge of literature and science which he once possessed and to hold himself abreast of the surging current of modern thought and work.

During the past year I travelled 4,354 miles on the business of inspection and examined all the schools in the district for results, save Nenagh Gaol School, and two ordinary National Schools, which have lately been taken into connexion by the Board. In addition to this there were 117 incidental visits made to the schools and 20 were examined and reported upon as secondary inspections.

The average number of pupils on rolls of each school = 85·7—showing an increase of 9 per cent. since 1874, the total of averages on rolls = 13·2 per cent. of the population.

The average attendance = 48, which is about equal to that for 1874—the total in average attendance = 7·4 per cent. of the population.

On comparing the average attendance with the average on rolls, we shall find the centesimal proportion to be only 56, indicating a low degree of regularity in attendance at school. This is much lower than that in either England or all Ireland, and considerably below that in Scotland, as shown by returns for 1875. For the two former the centesimal proportion = 67, for the latter it is as high as 75.

I attribute the increase in the number on rolls mentioned above, to the efforts made by managers and teachers during 1875 and 1876, either to drive or allure to the schools a large proportion of previous non-attendants—the teacher, no doubt, anticipating a consequent increase to the results fees. The recalcitrant raw materials thus introduced proved too tough for the schoolmaster, who, finding that they were not likely to be remunerative, suffered them to attend or remain away without making further effort. He saw that although they might make the requisite minimum numbers of attendances, the poverty of their acquirements would present them in a sorry figure at the results examinations. This is one of the defects of the results system, that it induces the teacher to give attention only to that factor in his school which will afford a tangible return. Provided he can secure an average attendance to warrant payment of class salary and the maximum amount of results fees for the good attendants, the irregular attendants are of no account to him; nor are those waifs of the community, the neglected little ones, who either have no parents, or perhaps worse, have bad parents, induced by gentle hand or loving voice to attend school, even for a few months of the year. Yet, after all, this is but the action of average human nature, where one set of acts is rewarded and the other not. But if this human nature were made to feel that there are other factors in the worth and usefulness of a school to be estimated and rewarded, such as the proportion of the number on rolls to the population within its sphere, and the proportion which this number bears to the number in attendance, many of those effects would appear which are now eagerly sought to be produced by a compulsive system. The results system is good as far as it goes; it would be better if it went farther.

I have no hesitation in stating that the number on rolls might, with

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little effort, be increased one-fifth, and the number in average attendance increased one-fourth.

Were this increase effected the proportion of average attendance to population would be about 9·2 per cent. In Scotland, under the operation of the new Act, this proportion has become 9 per cent., and in England 7·7 per cent.

Mr. C. W. Dugan.

In order to exhibit at a glance the status of popular education in this district, compared with that in all Ireland, England, and Scotland, for 1875, I have condensed some previous statistical returns into the following table:—

Data.	D. 36.	England.	Ireland.	Scotland.
Amount of Education:— Centesimal proportion of average attendance to population,	7·4	7·7	7·1	9·
Regularity of Attendance: Centesimal proportion of average attendance to average on rolls,	56·	67·	67·	75·
Progress: Rate of increase,	9 per cent. since 1874.	60 per cent. in 5 years up to close of 1875.	8½ per cent. in 5 years up to close of 1875.	42 per cent. in 3 years up to close of 1875.

The above table clearly shows the effect of compulsory measures in England and Scotland, and the great want of some such measure for Ireland.

The total number of pupils examined for results was only slightly in excess of the total average attendance. We therefore see that a large proportion of the pupils on school rolls, at least 40 per cent., escaped the Inspectors' individual examination.

I could easily fill this general report with tables and numbers referring to the results examinations of the schools—such as proportions of numbers of passes to numbers examined—per-centages obtained in each class, and in each subject, and so on; but have omitted indulging in such statistics, interesting enough in themselves, in accordance with the general official instructions in letter dated 8th February, 1877. I shall merely make some general remarks on the proficiency in the several branches of instruction.

Reading.—The style of reading is tolerably fluent and accurate as to the pronunciation of individual words, but the pupils show a want of an intelligent conception of the subject-matter read, consequently they do not group the words expressing the distinct separate ideas, and the whole reading, wanting life and animation, falls flat and monotonous on the ear. This is a most pernicious defect, and fatal to the cultivation of a taste for reading in after life. The pupils begin to look upon the whole affair as a mere mechanical school business; the words have no meaning beyond their bare forms and sound. It is common to find young men and women who had read the Fourth Book and even Fifth Books at school a year before, evincing the greatest repugnance to reading for instruction a handy book on gardening, or on cookery, solely because they could not understand the words, or grasp the several ideas sought to be conveyed. Further, the habit of reading without understanding breeds a habit of doing other work in a similar manner, "for use almost can change the stamp of nature," and general inattention is the result.

The recitation of well chosen poetical pieces is an exercise of no small

importance in a National School, provided it be properly carried out. Many of those beautiful selections which adorn our class-books enclose thoughts that easily cling to the memory, while they better the heart.

In most of our schools the children have been taught to repeat the words in the requisite number of pieces of poetry, but this exercise is confined to mere repetition of words—there is no expression—no gesture nor any indication of the natural language of feeling or emotion of any kind.

Oral spelling is very fairly attended to. More attention, however, requires to be given to syllabic pronunciation and spelling. Writing from dictation is remarkably well attended to. Only in a few schools have I met with carelessly written exercises of this kind. I make it a rule to mark strictly, and the sentences given are generally pretty trying.

Penmanship is tolerably well taught; the teachers do not give adequate attention to the supervision of copy-books during the time of writing, nor to the practice of a continuous or current hand. In many instances there is an utter absence of imitation of what is intended to be a copy-line; in fact the only thing copied is the spelling.

The copy-books sold at a halfpenny each are most undesirable for a school. The paper is very inferior, the ink sinks through and gives a blurred appearance to the writing. When the teachers run short of the copy-books supplied by the Board, which is very often, they purchase stocks from the shops in the neighbouring towns and villages. These copy-books are inferior both in quantity and quality of paper, and besides this, are objectionable in other respects. Matter is frequently printed on the covers which ought not to be introduced to a National School.

I do not object so much to what are termed the Home Rule Copy-books, with National emblems and mottoes, so long as nothing disloyal or denominational appears, nor to any sentiments inculcating love of country, nor to the wretched woodcuts and topographical notices which ornament the covers of others; but I have frequently had occasion to animadvert on the introduction of books having vulgar chap ballads printed on their covers—unfit either in phraseology or sentiment for any young readers. Is it possible that the publishers of such books intended for children's use find it profitable to print such stuff on the covers?

Arithmetic.—Proficiency in arithmetic has reached a very fair degree. The work on paper of the senior classes is deficient in neatness and method, as the teachers do not go to the trouble of exercising the pupils in this way regularly throughout the year. Many take up the practice a few months before the results examination—consequently the children are untrained to it and make sad work of the answering.

Amongst the junior classes, even up to Class III., it had been a common practice to perform arithmetical operations by means of counting either slate-marks or the knuckles of the hands.

The questions on the cards for the senior classes are very fair tests according to the programme. I would wish, however, to have them arranged more methodically. Of the three questions required to be answered for a mere pass, one ought to involve some exercise of thought in its solution, the other two might be mere plain examples of the rules. The six questions on the card might thus be divided into two sets—the first and fourth to be "thought questions," the others mere "rule or straightforward questions," the pupil to choose either set for a "mere pass," and, in addition to this, at least one other question in the other set for a "satisfactory pass."

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Comparing the sets of questions lately issued with the old sets for Class IV., the former are in reality less difficult, though involving a more thorough acquaintance with the tables and reduction. Yet I found considerably more failures in answering these than in the older sets, proving what had been observed from oral examination that instruction in tables had been neglected.

The results obtained in *Grammar* and *Geography* have for the most part been very poor. In both subjects there is too much teaching by the book. Let the teacher, with his pupils around him, with blackboard, chalk, and map at hand, bring his full mind face to face, as it were, with those of his young listeners, dissect each day a sentence as an anatomist would a limb, into its bones, muscles, nerves, and connexions, show the outlines and relative positions of regions on the surface of the globe; draw the skeleton of a country, its mountains, valleys, rivers; show how the positions of town and centres of human power and industry are dependent on these, how climate and physical position has affected the welfare and progress of the inhabitants, and he will have done more in implanting a real lasting knowledge of geography and grammar in one hour than is ordinarily done in one month.

Plain Needlework is pretty well attended to; all girls capable of handling a needle and knitting pins are taught plain sewing and stocking knitting. Fancy work is comparatively neglected. Cutting out very partially taught; the Board's treatise on this subject is almost quite unused.

Extra Branches.—Geometry, mensuration, and algebra, is taught in 12 of the ordinary National schools to a fair proportion of the pupils. As a general rule, however, slight attention is given to these subjects, and I believe that mathematical knowledge is fast declining amongst the classes whose children attend National schools.

Ancient Languages.—In a few schools instruction in both Greek and Latin has been introduced. In three the pupils, few in number however, make a very fair attempt; portions of Sallust (Jugurthine War) and Xenophon (Anabasis) correctly translated, and a tolerable knowledge of the grammar shown. The methods of teaching and the text books used are very antiquated. It is my impression that the teaching of these extra subjects during school hours cannot with safety be encouraged; they can hardly be taught without some prejudice to the great body of the pupils, and to progress in the legitimate subjects of instruction in a National school. When taught outside these school hours they deserve encouragement and approval.

There are four Poor Law unions within the limits of my district—two are contributory under the Act of 1875, and two non-contributory. The diminished incomes in these latter have naturally produced amongst the teachers a feeling of discontent, and of unequal treatment. I understand, however, that the other unions will be voted non-contributory for 1877. Although such a step will have the effect of depriving the teachers within these unions of one-third of the amount of results fees payable had they continued contributory, it is in my opinion a most desirable one in order to remove the absurd inequality and consequent sense of injury at present existing. The Act was undoubtedly framed with the sound principle that local aid should supplement the Government grant, but as the result proved, the machinery adopted for the production of this local aid was defective, and requires re-adjustment.

The Teachers are fairly efficient and useful as a public body, but, with a few bright exceptions, as a rule they fall very short of what instructors of the people ought to be. There are several whose manners and habits of life

render them quite unfitted for the training of youth, and a large number want the necessary skill and organizing power for the successful conduct of of a school, and for contending against temporary difficulties. Three teachers had been removed from their schools during the past two years for intemperate habits; one by Board's order, and two by the action of local managers.

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The character of a school is so intimately bound up with that of the teacher that it is impossible to disassociate them. A good teacher produces a good school, and the reverse of the proposition is equally true. It is obvious therefore, that the selection and appointment of teachers is one of the most important trusts in any system of education. In too many instances those in whom this trust lies do not exercise it with judgment or discrimination. There is no doubt that managers find it difficult to obtain the services of skilful trained teachers, but it is a matter of fact that motives of kindness towards individuals, or of personal feeling towards them as parishioners have frequently determined the competitions for a vacant post. It is true that the inspector has a veto upon all new appointments; but provided the candidate passes in the very low programme for third class teachers he is practically powerless in the matter, save where some very glaring defect is apparent on the surface. There are so many factors engaged in the formation of a good teacher—intellectual and moral qualities, personal manner and influence—that it is not easy to find out, even after one or two visits of observation, what may prove to be cases of utter failure, while in the meantime much harm is done.

I trust the day is not far distant when no person shall be allowed to take charge of a school without a diploma of skill and acquirements—a certificate of training and classification.

Monitors.—There are 45 monitors engaged in the schools of this district, viz., 4 first class, 33 second class, and 8 third class. Of the total number appointed since 1870, comparatively few have become teachers. A large proportion of these, nearly one-half, passed through the Convent schools; while on the other hand, the very existence of these schools having rendered the establishment or continuance of several of the ordinary female schools unnecessary, proportionately diminished the chances of appointments either as principals or assistants for the female monitors whose periods of service had expired. I fear that the teachers generally, having an eye to the best possible grinding for results, overwork the monitors during school hours. In fact with this view, the teachers are eagerly seeking after the appointment of monitors in preference to an assistant, even in those schools where the average is sufficiently good to warrant a grant of salary to the latter. The explanation is—monitors do not obtain any portion of the results, assistants take at least one-third. I look upon this as a very short-sighted policy, and one that ought to be discountenanced.

During the past year I have drawn the teachers' attention to the preparation of their monitors in the art of teaching. At the late examinations they exhibited a lamentable deficiency in method: the study of Joyce's admirable little hand book appears to have been quite neglected.

The greater number of the school-houses are in a satisfactory state; 16 are in tolerable or fair order, and 3 decidedly bad. The appearance and demeanour of the pupils indicates a very fair degree of comfort and prosperity. I do not think, however, that personal cleanliness at home is properly attended to; the children are well clothed and well fed, but one meets too often with evidence that the clothes are not clean.

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Mr. C. W. Dugan.

I record, with great pleasure, that there is a growing desire amongst the managers to improve the condition of the school-houses.

Since my last report two new schools have been established in portions of the district not previously supplied, and to the want of which I had drawn attention, viz., St. Kieran's and Lumcloon. In the case of four schools, each consisting of two departments, grants had been withdrawn from one boys' and three girls' departments, and the schools amalgamated owing to inadequate attendance. In two of these the grants have been restored, and steps have been taken for a similar action in a third, the attendance having increased so much as to warrant a separate grant.

Six schools under the management of clergymen of the late Established Church, and which had been in connexion either with the Church Education Society, or otherwise supported from church and parochial funds, have received grants from the National Board, and are now conducted strictly according to its rules. In all these instances, even in localities where National schools had been already established, I considered it my duty to recommend the applications to be entertained, in order to bring the schools within the beneficial sphere of National school principles and rules, and to give the pupils and teachers the benefit of National school organization and inspection. In most of these cases I also considered that there was sufficient room for the establishment of separate schools.

There are forty managers of schools within my district, viz., 13 Established Church, 26 Roman Catholic, and 1 Wesleyan. Of these there are clerical, Established Church, 6, Roman Catholic, 22, Wesleyan, 1; also 3 superiors of convents.

With all of these, it is my good fortune and privilege to have the most cordial and friendly relations. In no part of Ireland have I met with a body of persons more disposed to assist and encourage the Board's Inspector.

The Roman Catholic clergy, friendly as they have been at all times and all places to the establishment of National schools, always welcome the Inspector's visit, and almost look upon him as one of themselves; but to those estimable gentlemen, the Established Church clergymen, I feel especially grateful for the kindness and urbanity with which they received me.

I have the honour to be, gentlemen, your obedient servant,

C. Winston Dugan.

Mr. W. O'B. Newell.

General Report for 1876 by W. O'B. Newell, Esq., A.M., District 37—Centre, Naas.

School-houses.—The distribution of the schools in this district continues to accord very fairly with the distribution of the population. Rathcoole in the county of Dublin is, I believe, the only place where a new school is desirable. In my annual Report for 1873 I gave a list of small double schools which it seemed necessary to amalgamate. Six of these, I am happy to say, have already been amalgamated with excellent results; the same fate is also imminent in the cases of three of the others. Though the past two years have been very trying to buildings owing to the rapid alternation of frost and rain in 1875, and the constant wet of 1876, still the repair of the school-houses is in general fair. Several houses have been improved by the addition of porches, by the boarding of the rooms, and by a variety of repairs. In many instances the

managers have provided a complete set of new desks. Though I can only recal two cases in which the teachers suffer extreme hardship from the want of residences, there are, however, upwards of thirty schools which would be rendered much more desirable were there residences attached, and some of the existing teachers' houses are very inferior. I have made it a rule to lay great stress on the school-houses being kept in sound repair and made comfortable for the children. Pupils often come in wet after a long walk, and unless the room is free from draughts and supplied with a cheerful fire, they are likely, instead of learning, merely to sit shivering for four or five hours. The chances are they then go home having contracted severe colds which will cause them to be absentees for weeks. No doubt there are still a few school-houses which are not altogether in a satisfactory state, but as the outlay needed to repair them invariably comes either directly or indirectly out of the managers' pockets, it is sometimes necessary to make allowances for delay.

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Managers.—I have the pleasure of being able to state that my relations with the managers of my schools have been most cordial. Many of them evince a keen interest in the success of their schools, and exert their influence to induce the pupils to attend regularly. The Roman Catholic curates are beginning to visit the schools in their parishes frequently. I have often been surprised at the intimate knowledge some of them have acquired as to how a school should be taught. I could, however, wish that they would be so kind as to record the hour of their visit, to count the numbers present at the time, and to note exactly the way business is proceeding when they enter.

Finding that teachers frequently fail to present the Observation Book to the manager, my remarks being very often not altogether flattering, I make it a rule when there is anything specially demanding his notice to leave a noting, desiring the book to be presented to him on the occasion of his next visit. The effect of good management comes next to that of efficient teaching. The schools in the parishes of Allen and Blackditches were, a few years ago, perhaps about the worst in Ireland; now, thanks to the efforts of the managers and their curates, they contain some really useful schools.

Pupils.—The fact that in many places it is the rule for pupils not to come to schools as "infants," that is to say, under seven years of age, proves a serious obstacle to progress. In the Wicklow and Bog of Allen portions of this district several of the schools are nearly emptied of the senior pupils during the summer months owing to herding on the mountains and the preparation of turf. On the whole the attendance of the senior classes, in which good attendance is most essential, is extremely unsatisfactory, and such as not to give the results system a fair trial. I have also to regret that a large number of pupils leave school before they have learned anything more than the merest elements of reading, writing, and arithmetic. I believe not more than 10 per cent. of the pupils on rolls are examined in the fifth and sixth classes. There are five or six of my schools which supply hands to factories and mills. Here the new Factory Act, if rigidly enforced, would produce much good, yet it is to be feared that its provisions are often evaded.

School-fees.—The payment of school-fees has improved. I attribute this partly to each pupil's fees having to be regularly recorded on the summary-roll, and partly to the recent action of the Government, which has shown managers and teachers that an effort must be made to raise the amount of local support. When the children receive good value in the

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way of teaching, I rarely find that their parents begrudge liberal school-fees. One example will serve to illustrate the effect of good instruction towards increasing school-fees. In a certain school an inefficient teacher could never obtain more than £5 annually; his successor, who taught well, soon succeeded in raising the amount to upwards of £20. This is only one example out of many. Where I noticed the fees were abnormally low, I have always requested that the matter should be brought officially under the manager's notice.

Supply of school requisites.—The schools have not been quite so well supplied with requisites for sale to pupils since the Treasury desired the commission formerly allowed to be discontinued. Still I have not had to notice many serious cases of neglect. Of course the teachers are now liable to more or less loss on account of wear and tear.

School accounts.—I believe the daily attendance is now not so frequently incorrectly recorded as was formerly the case. But I have had to complain of the books having been allowed to fall into arrear in some particulars, as well as of the documents used at the results examination having been inaccurately and carelessly prepared. It must, no doubt, be allowed that school accounts have become extremely complicated, and demand, perhaps, an over large share of a teacher's attention and time.

Teachers.—Nothing has struck me more forcibly during the past two years than the fact that an Inspector is powerless for good where the teacher is not efficient. Having allowed teachers who had never been working well, sufficient time to show if they were capable of improvement, I have, in case of their failing to improve, made every effort to force them out of my district. When managers remonstrated with me on this seeming severity, I have usually succeeded in silencing their objections by pointing out the fallacy of regarding schools as built for teachers, and by showing them how a bad teacher may blight the prospects in life of the hundreds of children who pass through his hands. I could cite several instances of careless and drunken teachers, who were tolerated over long, having done irreparable injury to a community. The conduct of such teachers also tends to prevent the body to which they belong attaining a proper status in society.

On the other hand, the results of earnest and efficient teaching are marvellous. Some of the worst schools in my district, once scarcely commanding an attendance of 25, have fortunately passed into good hands. Within less than a year I have known the attendance to double, and the answering of the classes to become highly satisfactory. Taking it all and all, I consider my teaching staff has improved since 1874. The improvement has not, however, been the effect of home growth, but is mainly due to foreign importations, which, as nothing save extremely unmarketable exports have been given in exchange, must have weakened other districts considerably. I believe the teachers in this district are as a rule working at the highest possible pressure. Of course there are too many of them who from want of training do not know how to work with effect, and also some old teachers who are past work. Were there any adequate provision for their old age I would have no compunction about forcing these latter to retire. It has been extremely difficult to obtain steady male teachers for small schools. Hence several small schools have had to be amalgamated with the adjoining female school, and placed in charge of one or two female teachers. These teach reading, spelling, and writing, perhaps better than male teachers and certainly give much less trouble to an Inspector. Still they generally fail to teach arithmetic well, and boys leave such schools young, without

having acquired a knowledge of book-keeping, geometry, or any branch which might enable them to rise above the level of agricultural labourers.

The number of teachers who possess the gift of organization, and who can train young persons successfully for the office of teacher—a most important consideration in a district from which few attend the normal training school—is small, and the genus is not increasing.

I have endeavoured in every way in my power to show managers that it was for the interests of the schools that the positions of the teachers should be made comfortable.

Monitors.—The staff of monitors in this district usually consists of about 20 males and 45 females—the majority being second class, and about 2 males and 6 females having reached first class; third class monitors I find to be unpopular and of little use. About 1 male and 5 female monitors obtain appointments each year as teachers. I have had to complain of the monitors in several of my large schools not receiving sufficient instruction and being engaged too long in teaching classes. In these schools I believe an ordinary pupil who remained on to reach sixth class would have a much better chance of becoming an efficient teacher than one of the monitors would have. Where I noticed such irregularities I have threatened to recommend the withdrawal of salary from the neglected monitors. Of the monitors at present recognised, I would say that 4 males and 12 females may be calculated upon as likely to become efficient teachers, if trained subsequently to the termination of their course. I have recently directed my attention, at secondary inspections and incidental visits, to observe the monitors' methods of teaching. As yet I cannot say that many of them have acquired sufficient confidence to teach well in my presence. However this is not surprising when numbers of experienced teachers who ought to know better will cease teaching when an inspector enters the room, instead of proceeding with the ordinary routine, and giving him an opportunity of observing the organization of the school.

Proficiency.—I always endeavour to make the results examination thorough, regardless of the time it may take to do so, for I look upon time so spent as better employed than if saved for secondary inspections which I find to be of little use in schools conducted by efficient teachers. About 50 fairly classed pupils are as many as I make it a practice to examine in a day, now that the numerous sub-heads of the programme have to be carefully gone into, and a complicated system of accounts checked. In 1872 when results examinations commenced the case was far different. It was then possible to examine 100 pupils in five hours, and I once examined 10 schools in five days. Were the services of an assistant, who could read the five dictations which I have sometimes to give out, check the school accounts, and exercise a salutary superintendence over the pupils who were engaged at written work, allowed me I could no doubt get through a far larger amount of work than is now possible. My secondary inspections have been chiefly devoted to the schools of young inexperienced teachers who required suggestions, and to those of teachers whom it was necessary to stimulate to increased exertion. I also make it a point to pay numerous incidental visits, which I believe to be most useful.

The general conclusion to which I have come regarding the progress of the classes in my schools is that the junior pupils are advancing fairly, but that irregularity of attendance coupled with the unskilfulness and meagre acquirements of many teachers too often prevents the senior

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classes passing successfully through their standards. No doubt in a country in which the mass of pupils leave school at an early age it is great matter that this progress in the junior classes should be secured. To prevent the senior children being advanced too rapidly from motives of self interest by unskilful teachers I would wish to see it made a rule that no pupil who failed in reading, spelling, writing, or arithmetic could be promoted to a higher standard until such time as he satisfied the requirements of the programme for the class in which he had failed. The increase in the qualifying attendance from 90 to 100 days is doubtless a step in the right direction, but I consider that no pupil of fourth or a higher class can be intellectually prepared on the programme in less than 150 days of four hours' attendance at secular instruction. As the lump sum earned at a results examination is often not a true index of the efficiency of a school, depending as it does to a great extent on mere numbers, I would wish to see a bonus or per-centage added in such cases as the Inspector could certify that there were evidences of intellectual life in the school, that the sub-heads of the programme were carefully taught, that the discipline and organization were good, and that altogether the school left a pleasing impression on his mind. At present the difference between mediocrity and excellence cannot be sufficiently marked, nor does it seem desirable to modify the system of marking in order to attempt to do so: any such experiments would only tend to render the work of examination impracticably complicated. Difference in class salary does not always secure the distinction between a poor school and an efficient one; some teachers who are only classed first of third teach infinitely better than some who are in second class, and yet certain obstacles, say want of early preparation in geometry, may prevent them ever being able to improve their classification by examination. The duties attached to high classification are also apt to be lost sight of by an Inspector.

Reading.—The reading of the junior classes has become more accurate. Not much improvement is to be noticed in the reading of the senior pupils. The latter seldom read as if they understood, took an interest in the lesson, or desired to convey its sense to the listener. Few teachers have taken the pains to make themselves good readers, and I believe the lesson for each day is not often read over correctly for the junior classes. I intend in future to apply a far stricter test to the mere elocutionary part of the reading of the senior classes. When a pupil reaches fifth class something superior might be expected in this respect, yet save that he is able to scramble over a few hard words which do not occur in the Third Book, his reading is oftentimes no better than that of a third class pupil, and in no way exhibits the fruits of any cultivation on the teacher's part. When the junior classes are large I have recommended that simultaneous reading should be practised; yet this is an exercise not unfraught with hazard in the hands of a careless teacher.

Explanation and recitation of poetry continue to be neglected or loosely taught. I could almost wish to see a distinct payment made for intelligent explanation and tasteful repetition of verses, coupled with accurate comprehension of the principal allusions in the poems recited. I once asked a large class of boys and girls who had learnt the lines in "Childe Harold" beginning:—

> "There is a pleasure in the pathless woods
> There is a rapture on the lonely shore,"

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what were the "oak leviathans" spoken of a little further on. The answers were all such as to show me that the stanza was only mere sound and fury to their ears; one boy's reply is worth giving as illustrating the manner in which explanation is neglected in most schools; it was "a man of the tribe of Levi." It is possible that the Fourth Book of Lessons is too long for poor attendants to master in a year, and that some of the extracts in the Fifth Book are beyond the comprehension of children of twelve or thirteen years old—take for instance the lesson on "Spiritual Blindness." I think it is to be regretted that such a useful work as the Girl's Reading Book is no longer on the programme.

Possibly in order to improve the reading and explanation of the senior pupils it will be necessary to begin with the teachers and try to cultivate some literary taste in them; in this so many of them are sadly deficient. With the object of fostering such a taste I would wish to see the critical study of a play of Shakspere, some classical poems such as "L'Allegro" and "Il Penseroso," and one or two of the prose works of Goldsmith, Scott, and Macaulay introduced into the teachers' programme. Were all schools provided with a few strongly bound standard works on travel, adventure, and animal history, to be lent as rewards to the senior pupils, a taste for reading useful books might thus be established amongst them. These few volumes might form the nucleus of a little school library. Of course the original volumes and all subsequent additions should be approved of both by the Commissioners and by the manager.

Arithmetic.—Classes 1 and 2 were very well prepared on the programmes specified for them in this subject. The answering of Class 3 was fair, except in long division which rule was seldom known. Pupils were often not as expert at their tables as could be desired: I consider that these should be said without any apparent effort of memory. As a rule failures in arithmetic were excessive in the senior classes who worked on paper from the test cards supplied by the Commissioners. The senior classes in girls' schools were infinitely worse than those in boys'. I attribute this to the majority of female teachers being themselves bad arithmeticians, not to any peculiar defect in the intellect of the girls, who when taught skilfully proved themselves quite as well able to deal with figures as boys did. A girls' school obtained the largest proportion of passes in arithmetic of any in my district. I fear that pupils are seldom made to go through sums on the black board and that there is not enough work done on paper from text books and text cards. Mental arithmetic is in most schools a thing of the past.

Geography.—This subject has been greatly neglected. I would wish to see it relegated to the list of extra branches, and paid for highly when well taught. The present fees seem to be too small to induce teachers to give careful instruction in it. Few teachers succeed in making a geography lesson palatable to a class by talking of the natural features, animal history, and inhabitants of a country; instruction is usually confined to a catechism on a string of unconnected names. I have tried to introduce blank maps into my schools, as I believe them to be most useful. Their use tends to fix the boundaries of countries, courses of rivers, directions of mountain chains, and positions of towns in children's minds better than lettered maps.

Grammar.—The results produced in this branch were extremely unsatisfactory. In nine schools out of ten it was mere vexation of spirit to examine in it. I believe grammar as at present taught is not worth paying for. Were it made an extra branch with a sufficient fee attached, teachers might be induced to take it up and teach it usefully to a few select pupils. No doubt in the hands of a skilful teacher

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grammar, including the elements of analysis of sentences, can be made the means of training pupils to think and reason accurately, as well as to speak the English language with propriety. Unfortunately there is, I believe, no text-book on the Board's list in which analysis is more than glanced at. Morell's Analysis, or a smaller work by the Rev. R. Demaus (Simpkin, Marshall, and Co., London), might be used with great advantage. If grammar were made an extra branch a little composition might be added to the course. The amount of this need not go further than the writing of a letter on a subject dictated by the inspector or the reproduction of the substance of a short narrative read by him. The composition of a letter is at present part of the programme for sixth class, but few pupils ever reach that standard, and the letters which second stage of fifth class are supposed to exhibit amongst their exercises are generally copies from some "Polite Letter Writer." I have to regret that the conjugation of an English verb according to Murray is seldom known. Without a knowledge of this the moods and tenses cannot be properly distinguished. A child who was ignorant of this, if asked to parse "I might have been moved" would say "a compound tense, formed of the past tense of the auxiliary verb may, the infinite mood of the verb to have, and the past participles of the verbs to be and to move," instead of "first singular pluperfect potential passive of the verb to move."

Penmanship.—Excellence in penmanship is becoming more common; on the whole I consider that it is the best taught subject on the programme. Teachers are in the habit of ruling the slates used by the junior classes deeply, supplying them with long neatly pointed slate pencils, making them write large and observe the ruling carefully. Headlines pasted on card-board, the words being separated by vertical lines which can be produced down the slates with slate pencil, are placed at the top of the slates for the children to copy. One teacher has engraved a series of headlines on slates. These slates will no doubt prove most useful. However, unless the letters can be sunk by means of some mordant, I believe the difficulty of engraving will not allow the plan to be generally adopted. In many schools lining similar to that in Mr. Foster's 3½ copy has been placed on one of the black boards by making fine grooves in it, and then rubbing chalk into these. By placing the board in front of the class the teacher or monitor familiarizes them with the shapes of all the large and small letters, and occasionally calls out pupils to write letters and words. The new numbers which Mr. Foster has added to his series of copy-books have proved to be most useful. I know of no series by means of which children can be so quickly taught to write with freedom and legibility. However, I consider it greatly to be regretted that ruling has not been placed above and below the small letters in the headlines, at least as far in the series as No. 4½. Were this done, pupils would be afforded important *points d'appui*, if I may thus use the expression, for their eyes. I am always glad to see the Palmerston writing chart in a school as it is of great service to young teachers and monitors. Where there is only one teacher, and the desk accommodation is sufficient, I am in the habit of recommending that all the classes should write at the same time in order to allow of the teacher being able to give undivided attention to the duty of supervision, whilst the lesson is in progress. In some cases I have noticed that much valuable time was lost in the distribution and collection of copies. This I found usually arose from want of method on teachers' part in mixing the copies of the classes, instead of having the book press divided into compartments in order to keep them distinct.

Angular writing has to a great extent disappeared from girls' schools; even the conductors of the convent schools who used to be the greatest advocates of a neat, cramped, painfully acute style of penmanship, have been kind enough to yield to representations, and have endeavoured *bonâ fide* to make their pupils imitate Mr. Foster's headlines. *Appendix A.* District Inspectors' General Reports.

Spelling and Dictation.—Oral spelling has improved in the junior classes. Third and senior classes as a rule spelled from dictation with fair accuracy. Still I cannot say how far these results indicate a general power of writing English with correct orthography as the passages chosen for dictation were of course always taken from the Board's lesson books. *Mr. W. O'B. Newell.*

Needlework.—I consider that proficiency in needlework has not fallen off since I spoke of it in my last report as being creditable. I could, however, wish that a definite programme specifying the different articles that girls should make when in each class were drawn up, and that some female more conversant with the art than I am were to visit the principal schools in order to guide and systematise the teachers' instruction in the various branches of needlework. I make it a rule to suggest that girls should mend and make up their own clothes in schools as far as practicable.

Extra Branches.—The numbers learning vocal music are not so large as they used to be; yet by insisting on a sound knowledge of the theory, and by not passing pupils who failed to sing the scale and chord of *do* accurately, I have succeeded in improving the quality of the instruction given, and banished the subject from the schools of teachers who could not teach it in a manner worth paying for. The number of pupils who can read pieces of music in common time has largely increased, but transposition is never attempted with success.

The use of the sewing-machine was taught with satisfactory results in seven or eight girls' schools. I cannot speak of either the extent or the effect of the instruction in any other extra branches as being worthy of note. The difficulty of putting boys through their Euclid has prevented mensuration being taken up in boys' schools. It would perhaps be desirable to make these branches distinct.

W. O'B. Newell, District Inspector.

General Report for 1876, by S. E. Stronge, Esq., District 45—Centre, Ennis. *Mr. S. E. Stronge.*

Gentlemen,—The following General Report for the year 1876–77, which I have the honour to submit for the consideration of the Commissioners, has reference to schools situated in the county Clare.

The outline of my present district, and indeed of the county itself—and on two sides the natural limits of the county and of my district are coincident—is very irregular. The river Shannon and the Atlantic Ocean bound my district upon two sides, and the coast line thus formed is indented by bays and estuaries which run far into the land. Loop Head is the extreme point towards the west, as Maghera, near Tulla, is my most easterly school. The distance between these two points is sixty miles. The greatest breadth of the district is thirty-six miles, and its area about 600 square miles. Within these limits there are 115 National schools—49 having a mixed attendance of boys and girls, 33 boys' schools, and 33 girls' schools. In addition to these, there are 6 denominational schools which are not under inspection, and I know of

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at least 8 adventure, or, using the local name, "hedge" schools. These adventure schools have not arisen through any opposition to the National system of education. Where the National schools are far apart and the children cannot attend owing to distance, or where our schools are not so efficient as could be wished, such schools immediately spring into life to fill the vacancy that has made itself felt. No certificate is required at the hands of the teacher. If he have a house, large or small, it is all the certificate he requires. In such schools I have seen as many as 100 pupils under the care of a single teacher. The most remote point of the long hilly peninsula of Kilkerrin, running out into the Lower Shannon and thickly populated, is fully four miles from the small schools of Labasheeda. On this peninsula are two large adventure schools. Similar schools are to be found at work in that portion of the parish of Inagh which lies between Morris's Mills and Ennistymon. Again, along the western seaboard, between Doonbeg and Miltown Malbay, and eastward towards Scropul and Cree, is a large district, parts of which are four miles from the nearest public school. No doubt State-aided schools would long since have been established in such places, were there any suitable houses that could be converted into school-rooms. Mud-wall cabins and low-roofed crumbling stone-houses are, however, the only buildings to be seen. Again, the people are too poor to contribute the one-third of the cost of establishing a vested school, while the proprietors of the soil show an unwillingness in many instances to grant a suitable site, and very rarely contribute anything towards building or endowing the school. I know of 10 schools only which are in receipt of any annual grant from the local manager, or the owner of the school site. This apathy or neglect on the part of the lords of the soil is much to be regretted. There are few parents in Clare, however ignorant and unable to read or write, who do not fully appreciate the advantage to their children of that knowledge which they lack themselves. As far as I can learn, there are very few children in the county who do not at some season attend school, and it is no uncommon occurrence for children to pass the door of one school and walk two or three miles farther to another, whose teacher has a greater reputation for ability or earnest work.

Of the 115 schools under my inspection 1 is a Gaol school, and 3 are Poor Law Union schools. As these 4 schools exist under different conditions as to attendance from the ordinary National schools, they will not be included in any statistics I may furnish.

In 111 schools examined I found 13,540 pupils on the Rolls, or pupils who had made at least one attendance during the three months preceding my examination. Of these, 8,313 were qualified by attendance for examination, and 7,754 were actually examined. It is not to be inferred that the children represented by the difference between these two numbers were all absent on the day of the examination. Many pupils were presented as infants or under seven years of age, who were one year and sometimes three years older, and whose names I considered it my duty to cancel. Of the 7,754 children examined, 4,646, or nearly 60 per cent., were found qualified for promotion to a higher class. The same result may be put in another form. There were 83 schools whose per-centage of promotions to the number examined exceeded 50, and 28 schools did not reach this standard; 18 schools showed the too rare efficiency of 75 per cent. of promotions; while in 3 only—Cooraclare, Lacken B., and Moyasta B.—was the answering so superior as to gain 90 per cent. I regret to say that there were 8 schools so inefficiently conducted as to merit less than 30 per cent. of promotions. With the general result I do not intend to deal in the

present report. If, however, we are to assume that the programme now in use is not too difficult for any of the classes, and that teachers and taught are quite capable of doing all therein set down in a year, and under existing conditions, the general result I fear cannot be regarded as satisfactory.

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I mentioned above that of 13,540 children on the school rolls the proficiency of 7,754 only was tested. It will thus appear that there are 6,000 children in round numbers of whose education very little is known. It is possible to find out in what class each is enrolled, but as to what proficiency has been made in the programme of that class we know absolutely nothing. A pupil who attends irregularly may remain for years in one class, and may be neglected by the teacher during his whole school course.

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It would thus appear that at present we can only speak definitely and certainly of the education of something less than two-thirds of those of a school-going age. Such a state of things demands serious attention. As we have not compulsory education which would ensure the full attendance of almost every pupil, I would venture to suggest that the names of all pupils who have made any attendance during the three months preceding the results examination, or generally who are irregular attendants, should be entered on the examination roll and examined, and that a gratuity be awarded depending upon the numbers so examined and the proficiency shown. A suggestion less open to objection, which would, in my opinion, in a large measure meet the difficulty, was put forward by Mr. Fitzgerald, Head Inspector, in his general report for the year 1873, that the irregular attendants should be examined every second year, provided that during the two years they had made a minimum of 160 attendances. It falls, however, within my province to point out the defect rather than to suggest a detailed mode of amendment.

The per-centage of passes in arithmetic did not exceed sixty during the past year. Indeed the number of promotions occurring in any class may be roughly taken as the number of passes in arithmetic, almost every pupil who is able to pass in arithmetic being also able to pass in reading and writing.

In arithmetic we do not seem to be making progress. The general answering is defective in point of quickness and intelligence. Of rules and "reason of the rule," the pupils know almost nothing. Learning arithmetic from books, or working sums at the black board, seems to have fallen into disuse. Cards, similar in form and difficulty to those used by the inspectors on the day of examination, generally usurp the place of the ordinary arithmetical class-book. When a pupil has worked twenty-four cards of five or six sums each, he is supposed to know arithmetic according to the programme and to be sufficiently prepared for examination. Pupils trained in this manner invariably fail when led from the beaten track and tested by sums which require thought and the application of principles which must be understood before they can be applied. It is to be regretted that owing to want of time and assistance it is seldom in the power of the inspector to examine the senior classes orally in this subject. Were an oral examination in a few of the easier principles as certain as an examination in the sums depending upon those principles, I should soon hope to find pupils answering in arithmetic as if they understood it and not resolving sums as compositors set type.

The failures in reading and writing seldom exceed ten per cent. Under reading, however, are included explanation and repetition of poetry, though in one class only is either of these regarded as essential to securing a "pass." It seems, indeed, as if we had thus put a premium on

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lack of intelligence. It is an every-day experience of the inspector to find a boy who can read a difficult extract from a well-known author with fluency, and absolute word-correctness, but who has a most indistinct conception of the meaning of what he reads. "He made a venal age unanimous"—occurring in Grattan's panegyric on the younger Pitt—"venal" is usually interpreted as meaning "bloody," and the explanation of such words as "chicanery" and "spontaneous," in the same lesson, is seldom attempted. I know of but one school in which explanation is systematically and regularly taught as part of the ordinary school routine. In this school the reading lesson is a home-lesson, the pupils being examined in school not only on the meaning of the difficult words in the lesson, but also in the subject-matter. As no additional payment is made for such thoroughness as this, it is becoming rare. I would venture to suggest that the rule which prevails in the sixth class on this point should be made binding on all the senior classes.

I have attempted, and not without success, to reform the style which obtained here of repeating the poetical pieces in the Lesson Books. In most schools they are now repeated slowly with some attention to pauses and emphasis, and not in the hurried, jingling, and tasteless, manner which formerly prevailed; and here I think it is worthy of consideration if we might not usefully introduce literature into our programme as an extra subject, as is done in the English code. Committing to memory 200 lines of a classic and mastering the allusions or writing out the subject-matter in prose is an excellent means of mental training. It would be difficult to over-estimate the value of such an exercise to those who are learning to write English composition, and the art of English composition is least understood and worst taught of all subjects attempted in our schools. The letters written by sixth class pupils—and in nearly every school there is a sixth class of from one to twenty pupils—on a subject named by the inspector, often consist of a single sentence only, 'mid whose chaos of involutions and provincialisms, it is vain to look for "rhyme or reason" or "method in the writer's madness." Nor is this inability to clearly express themselves confined to sixth class pupils. Monitors and teachers of the third class, and sometimes of the second class, labour under the same poverty and crudeness of expression. The only remedies are constant practice in composition and imitation of the best authors. But we cannot expect teachers and monitors voluntarily to undertake such a course of self-improvement. When English composition becomes part of the programme in all examinations, as it is in the English code, and teachers find that a study of the subject will "pay," then, and not until then, may we expect to find our schools improving in this respect.

At last year's examination of candidates for third class certificates 37 monitors were examined. Of these 13 only succeeded in obtaining classification, and 20 of these 37 failed altogether in method of teaching, while the answering of the remaining 17 averaged 30 per cent. only in this subject. The results of the examination for the preceding year were similar to those of last year. It would thus appear that the training generally received by these young persons is careless and unsatisfactory. The general failure in method shows how valueless—not to say positively injurious—has been the work of the monitors during their term of service. Monitors are not examined in method until the close of their course as monitors, and, as a consequence, it is only during his last year of service that the monitor receives any instruction in this subject from his teacher. In nine cases out of ten where there are many failures in the junior classes at the results examination, and where the pupils mumble their

words and count on their fingers, the failures and vicious training are attributable to monitorial teaching and want of supervision on the part of the principal. The programme of sixth class at present, or the course for senior monitors of one or two years' standing is an excellent preparatory for those who intend, as so many of our monitors and teachers do, to compete for situations in the Customs or the Excise. I am afraid many of them consider their present positions useful only as stepping-stones to such an end. It would, in some measure, check this evil, and be a decided gain as well to the schools, were the monitors' education more technical. That there is an art or method of teaching does not seem to be sufficiently known, or if known, seems practically disregarded by managers in appointing teachers. A pupil who has answered well at the results examination will be appointed as teacher without having regard to his aptitude or taste for such a profession, and enters upon his duty without training of any kind. To appoint a cabin-boy to the command of his ship would be an instance somewhat similar in kind. Method, as well as English composition, should, in my opinion, form a part of every examination of teachers and monitors. And it will add force to the remarks already made if we remember that a thorough knowledge of method on the part of our monitors would not only improve the quality of the work now done, but treble its amount.

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Young and inexperienced teachers find it very difficult to understand the method of keeping the present register. Unaccustomed to official forms, they make many blunders and false entries. In some schools I find one pupil who has two register numbers, and in others, pupils who have been some time in attendance, but who have no register numbers. Of course these are results of carelessness and neglect, and not of wilful fraud, such as we meet with in the record of attendances in the roll-book. The clumsy style of fraud by erasures, which at first obtained, can hardly now be said to exist. I have discovered but one serious case during the last two years. I am, however, bound to say that I have a large number of schools in the honesty of whose teachers I have every confidence.

When schools have been established by local effort, the houses are, as a rule, of an inferior class. Such houses have no out-office accommodation, and consist of but one room, low in the roof, insufficiently lighted, and with an uneven earthen floor. As the windows do not open, thorough ventilation is impossible. These houses are usually from twenty to forty feet in length, and are crowded to suffocation during the winter season; the daily attendance varying from 100 to 150. There is scarcely standing room, and it causes no little difficulty to the visitor to make his way to the teacher's table. Add to this, the furniture is always insufficient and often unsuitable. Three or four rickety desks without inkwells and slate grooves, one or two forms, and a small table for the teacher, is the sum total of the school-furniture. Seldom in such a house do we find a teacher who knows anything of order and tidiness, or if he do, puts such knowledge into practice. The children are often found sitting on the floor, or crowded into one angle of the school-room four deep. In another corner have been loosely thrown down the caps and shawls of the pupils. In a third corner is the fuel—usually peat here—a broom, and possibly slates and torn books. Though in many such schools, as appears at the results examination, the teachers have according to their knowledge and ability worked zealously to prepare their pupils in the subjects required by the programme, yet such instruction is essentially one-sided. No attempt is made to foster a love of personal tidiness and order. Drill,

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too, and discipline are facts with which the teacher has no practical acquaintance. No systematic organization, no regular change of divisions according to a fixed time-table, is in force. Indeed an orderly change is sometimes impossible, owing to the rickety furniture and its faulty arrangement. I should be disposed to regard the habits engendered by a good school discipline and by the constant necessity of attending to personal neatness and general order as half a pupil's whole education. Such attention to formation of habit is especially necessary in the West of Ireland, where the pupils' home-life is so very far removed from such associations as tend to refine or elevate. As regards order, much could be done by our teachers, were they to devote any thought to the matter. It would not cost much to provide a box for fuel, or a cap and shawl rack. Indeed a teacher who knows his right hand from his left ought to make such useful furniture himself. A teacher's golden rule ought to be—"A place for everything, and everything in its place." Children are quick at seeing and quick at imitating, and were our school-houses more commodious and tasteful, and were tidiness, order, and discipline, watchwords in our schools, I should hope, ere long, to meet less uncouth figures on our roads, to see hedgerows more trim, houses more neat, and less comfortless homes in our land.

I had intended to introduce into this report some remarks upon the extra branches, and the present method of teaching grammar, but I found it necessary to exclude them, in order to make way for subjects more pressing.

I have the honour to be, gentlemen, your obedient servant,

S. E. Stronge.

The Secretaries, Education Office, Dublin.

Mr. F. Eardley.

General Report for 1876, by F. Eardley, Esquire. District, 46—Centre, Tipperary.

Tipperary, March, 1877.

Gentlemen,—In compliance with the instructions conveyed in your letter of the 24th ultimo, I furnish herewith my General Report on this District, of which I have been in charge since 1st June, 1874.

Roughly speaking, the district is enclosed on the north and south by two ranges of mountains; that on the south—the Galtees—is exceeded in elevation only by Magillicuddy's Reeks. On the east it extends to the town of Cahir and on the west to Bruff and Bruree. Within these limits stretches a great plain watered by the mountain streams which flow either into the Suir or the Shannon. Owing to the prevalence of south-westerly winds and the direction of the mountain ranges—east to west—the rainfall is remarkably high, as much as eight inches having been registered in a single month. In no other part of Ireland have I seen the precipitation so violent. It reminds one of the descriptions of the down-pour in tropical regions. In consequence, the mountain streams become swollen in a few hours to foaming torrents, the water-courses, unable to afford a passage to the vastly increased volume of water, overflow their banks, inundating the country for miles. This may account for the irregularity of the pupils' attendance in some seasons, while it may also afford an explanation of the extraordinary fertility of the plain known as the Golden Vale. This very fertility, singular to say, is one of the chief causes of the poverty of many of the

pupils attending the schools, as well as the unsuitability of some of the existing school-houses. Tillage is comparatively rare throughout this fertile tract, as it was found more profitable to turn the land into grazing farms than to pay what the farmers considered the extravagantly high wages demanded by labourers. Simultaneously with the disappearance of tillage, the farms increased in size, and the small villages fell into comparative decay. Hence in large tracts of the country, the only houses besides those of the comfortable grazier are the wretched mud-hovels occupied by herds or the few labourers whom it was necessary to retain for the cultivation of patches on which the food required for the household was raised.

The school-houses were at first after the model of the humblest class of dwelling in the country, and a long time elapsed before the feeling took active form that the poorest pupil should have an opportunity afforded him of learning by observation at school those habits of neatness, decency and order which were denied to him at home. That feeling has already succeeded in superseding the thatched cabin by comfortable slated houses with boarded floors at, among other places, Ardane, Ballough, Rockhill, Bruree, Martinstown, Ballycanon, &c., in fact the list might be extended to all the vested schools in the district as well as to a few others erected solely by local subscription. The difficulty which a manager may meet with in making improvements is illustrated by the following case which recently occurred at Bilboa. The school-house there was originally constructed, of pinched dimensions, for boys and girls. At length an enlargement became necessary, and it was decided to erect an additional school-room for the girls. How imperatively necessary was this step is evident from the fact that, though the girls' school-room was of the same dimensions as the original house, it now actually needs enlargement. To raise the funds for this work, the manager with some advice proposed that each person enjoying the benefit of the school should contribute so much in the pound on his Poor Law Valuation. This after some grumbling was paid by all except one, who refused to contribute on the ground that he had no girls to send to the new school. The manager then determined to exclude the boys from the male department, but the farmer appealed to the Board against this decision, and the Board gave orders that the boys must be admitted, and admitted accordingly they were. Notwithstanding difficulties like this that may arise, the same manager improved the school-house at Cappamore by raising the house a story at a cost of about £100, the manager at Oola effected a similar improvement, and improvements of a minor character have been effected in about a dozen other schools. At Knocklong where there is a miserable house—the very type of a structure unfit for school purposes—with walls so low that light and ventilation are most unsatisfactory, roof not watertight and no out-offices, an attempt was made to obtain a building grant from the Board, but up to the present without success. The proprietors of the proposed site which is not arable land insisted that the proposed schools should be vested in the Commissioners, but to this the parish priest, though not the applicant, objected ; and so between conditions on the one side, and objections on the other, the teachers and children suffer. At Dromin which like Knocklong is in the very heart of a rich stretch of country, a similar unsatisfactory school-house exists, but I have reason to believe that before another year elapses, a suitable house will be erected. This shows that much real progress is being made.

It is greatly to be regretted that no sufficient means exists by which

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the school-rooms could be properly heated in winter. In many of them, even after giving notice of a results examination to be held, it is unsatisfactory to visit and find the children all assembled, clean but shivering, and so manifestly unable to undergo any written test that I have been often constrained to send them out for a good run that they might return in a state fit for their examination. Now, a little exertion on the part of the teacher would render such a state of things quite impossible. Though fuel is scarce—none other than coal being used throughout the district, with very few exceptions, yet the children, if appealed to, would subscribe, say about 20*s.*, and this sum would be amply sufficient to keep up a good fire on the very cold and wet days. A frequent cause of the cheerlessness of the school-room is neglecting to have the broken panes replaced, often for months at a time. This duty of keeping the windows in good repair falls almost entirely on the teacher. The managers do not like to be annoyed by such trifles and are apt to attribute the breakages to some neglect of duty on the part of the teacher. The speedy replacement of the broken panes, though apparently a trifling matter is not so. Owing to the defective construction of the houses in which such accidents are most likely to occur, the draft produced passes at the level of the children's heads or chests, and numerous are the colds and coughs arising from this cause. The arrangements for ventilation are improving, and the necessity of enforcing a compliance with the requirements of the Board on the subject is now fully understood and acknowledged. Another point with reference to the suitableness of the fabrics is the singular absence of privies. Even in village schools, where privies were originally provided as in all vested schools, they have in many cases been allowed to fall into a state of utter disrepair, or if not, are filthy in the extreme. It is to be hoped the sanitary authorities will take this matter in hands as they have done already at Kilmallock (SS. Peter and Paul's) and Kilteely. In the former place, the Guardians expended a sum of £70, and in the latter £20 in providing suitable offices.

In the matter of *School Accounts*, I have met with several classes of irregularities to which I shall here briefly refer. In the first place, the fees paid by the pupils are seldom recorded in the prescribed manner. The amount received weekly should appear in the Daily Report Book; this requirement was not complied with, and when I requested an explanation, I was told the fees were paid annually or sometimes at longer and irregular intervals, and that it was impossible to do otherwise than omit making any entry until the entire sum for the year had been received and then record the annual amount. Even this annual entry was not always made. It frequently happened the teacher forgot making any entry as he thought it was a matter personal to himself in which no one else had any interest. Hence, I believe the returns of school fees received were a good deal the result of guess rather than of any settled form of book-keeping. The new instructions requiring an entry to be made of the amount received from each individual will render the returns more reliable, as it can be ascertained what each scholar did actually pay, and this will serve as a check on the whole. There was a general impression that the entire sum received from this source was understated; in any case it is extremely difficult to see how the returns can be quite trustworthy so long as the teachers themselves collect the fees.

The question of registering correctly the ages of the pupils is becoming of greater importance year by year. In some cases the child is en-

tered younger, and in others older, than he really is. In the former case the pupil reaches the higher classes before his mind is sufficiently matured to master some of the subjects, such as grammar and arithmetic. As an example of this form of irregularity, I may state that in one school, four of the children in the first stage of fifth class were respectively at the time of their presentation for examination 9, 9, 11, 10 years. Now it is difficult to see with what profit a child of eight years of age could be set to learn proportion and practice. The child must, if of the average type, get confused and disgusted with the subject and possibly with the school, and in point of fact, this forcing process was objected to by some of the parents who stated their children were overworked and were getting into delicate health. As to the case of registering a child younger than his real age, this is often done with the view of passing him as an infant, being assured of his failure in the first class. Of the two, this latter irregularity is certainly much less mischievous than the former.

Another irregularity frequently met with and connected with the former is that removals are not always made in accordance with the directions on the promotion sheet. As a copy of this sheet is forwarded to each school immediately after the results examination, one would imagine there could be no sufficient reason for deferring the changes for three or four months. Yet this is frequently found to be the case; the result being that the pupil receives instruction in the new class for only eight or nine months instead of twelve. Again, children who have not passed are often advanced with the rest of the class, even although the inspector felt himself justified in indicating that the child required another year to qualify for removal, and thus young children are advanced to their prejudice and against official direction. The number of instances in which pupils were presented for results fees oftener than twice in the same class was rather considerable, but these occurred rather through oversight and forgetfulness of the Board's instructions than to any other cause. I am happy to be able to state that instances of erasures in the school accounts are extremely rare and expect that next year they will be still rarer.

Proficiency—Reading.—The proficiency in reading is not high, neither do I think it is improving. The articulation is extremely indistinct, not only owing to the rapidity with which the words are pronounced, but to the fact that the sense of the passage is not comprehended, and this frequently leads to substitutions which destroy the sense but more or less demonstrate the correctness of the reader's eye and ear. The singular transposition of consonants and vowels is often remarkable. "There came a burst of *tundher* sound," is a frequent rendering where the "h" though retained in the word is shifted from the first to the second syllable. The vowel "i" is sounded "oi"; "e", "i"; and "i", "e". These are provincialisms which perhaps no mere teaching in the locality where they prevail would correct. But more time to the actual practice of reading than is now given is required; this would correct the indistinctness of articulation, and lead at least to mechanical correctness. When reciting the pieces of poetry the incorrectness is painfully evident. Each pupil has a slip of paper on which he has written the titles of the pieces he is prepared to repeat, and it frequently occurs that in an entire class of twenty, I cannot find one pupil to recite even one stanza correctly—that is with absolute verbal correctness. I attribute this looseness in the work to the fact that the pieces are not first explained before the pupils are required to get them

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by heart, to see that the scholars are not committing a set of words conveying no idea, and only pleasing on account of the rhythm. I have also suggested that the pupils should also transcribe any piece before learning it by heart. The allusions in the poetical pieces are hardly ever explained, and I fear many of the teachers do not study these pieces themselves. I have frequently tried to hear a teacher explain the following stanza so as to be understood by the class, but did not succeed:—

"I have no mother, for she died
When I was very young;
But still her memory round my heart,
Like morning mists has clung."

I observed from the countenances of the children that the words of the last two lines conveyed no idea to their minds, and on questioning found none could tell the likeness between "morning mists" and "memory round my heart." This deficiency is still more observable in the higher classes.

Writing on the whole is careful and improving. The copybooks in almost universal use, are those published by Vere Foster. The recent rise in the cost of requisites has led many teachers to use the halfpenny copybooks, the paper in which is so thin as not to afford a sufficient "pad" between the awkward hand of the beginner and the rough desk, the consequence is that the half corroded nib frequently sticks in the paper causing the ink to splutter over the page. In girls' schools the writing is usually somewhat neater than in boys' and the angular hand has almost completely disappeared. One of the points in connexion with this subject laid down in the programme, is that each pupil should exhibit ninety (now one hundred) *dated* copies. One of the advantages of this requirement is that to a certain extent it checks the entries of attendance made in the roll-book. I have had frequently to complain that the copies were not dated, neither was the required number forthcoming. There is no excuse in not having the copies dated regularly, but as to the production of the required number on the day of the examination, some apologies have been offered. It was alleged the scholars often brought their books home when finished to let their parents see what progress they had been making in writing, as this had been the practice before the introduction of the results system, and that these books were either altogether mislaid at home or so scribbled over by some member of the family that they were unfit to be shown again in school. Also, it was sometimes a matter of difficulty to induce the pupils to at once supply himself with a fresh book when the old one had been written out, and that if the teacher supplied a new one without being paid for it on the spot, he ran the risk of not receiving the price for it at all. I mention these excuses as they have from time to time been made to me by respectable teachers whose truthfulness there could be no reason to doubt, and the accuracy of whose accounts was not impugned. Still I am of opinion the existing rule should be maintained, as otherwise it would afford the unscrupulous or the careless teacher, a means of explaining away serious errors in the records of attendance.

Arithmetic.—With reference to this subject, it may be observed that year by year the pupils are becoming more accurate in the mechanical operations of adding, multiplying, and dividing. The prompting and copying that were formerly so rife, and in no subject so extensively practised as in this, have almost disappeared. Not that the children

refrained from a conviction there was anything wrong in making use of unfair advantages in the matter of the examination, but, because it was rendered impossible for them to do so. No doubt a good deal was done towards impressing them with the necessity of maintaining a thoroughly honest deportment; but the fact that no two pupils in the class got the same set of questions, and that any attempt at seeking information from a neighbour led to the cancelling of the papers, did more to put a stop to these vicious practices than any amount of previous cautioning on the subject. It is to be observed that the failures in girls' schools were much more frequent than in boys'; this I attribute to the fact that girls have less time for the subject; their extra branch is needlework, which has certainly no connexion with arithmetic, while the extra branches for boys, such as algebra and geometry, rather aid than impede their progress in it. Besides, in mixed schools, under masters where each sex received the same amount of instruction, I was not able to perceive any difference in their proficiency. A good many of the failures arose from want of familiarity with the technical terms. Sometimes pupils multiplied where they should have divided, and *vice versâ*, subtracted the greater from the less, when simply told to find the difference, and confounded ascending and descending reduction. In the senior classes a similar want of judgment was exhibited. Of decimals, the girls were in the majority of instances, quite ignorant. On the whole, it may be said there were far more failures in arithmetic than in any of the other subjects essential to a pass.

Grammar and Geography.—These subjects are, I fear, "getting crowded out." The drilling required to prepare a pupil to pass a stage each year leading to extra attention from the principal teacher to the junior pupils, has withdrawn from the seniors a corresponding portion, and the loss is felt principally in grammar and geography. The reading lesson was the natural and appropriate occasion to take up grammar in connexion with explanation, altogether distinct from the rote portion of the subject learned as a task or home lesson. To the practice of the art of reading with explanation, without the grammar, the teachers' attention must now be confined. Even the home lessons are not learned as formerly. The price of labour is so high that farmers are obliged to employ their own young children to do what was formerly the work of adults. As an illustration, I may mention that when examining the Caherelly school, I remonstrated with a little girl, ten years of age, whom the master told me would not learn any tasks. Her reply was she had to milk eight cows night and morning, and that she had no time for learning tasks. Everywhere I hear similar statements. The failures in geography, though nearly as numerous as those in grammar, are not so excusable. The maps round the walls are there apparently for ornament—in itself a very desirable thing in a school-room—but not for use. The subject in itself is so attractive that but little is needed to arouse the curiosity of the children, and they will do afterwards a good deal for themselves. It is certainly remarkable to find that even fourth class pupils, looking at these maps during their entire school lives, unable to point out such noted places as London, Berlin, Belfast. The attempts at drawing a map of Ireland from memory were simply ludicrous, except in about three schools. The uses of the meridians and parallels of latitude in assisting to find out on the map the names of places referred to, are seldom explained. Were this done and the pupils encouraged to provide themselves with small atlases which they would soon acquire a facility in consulting, a considerable amount of knowledge would be soon insensibly

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stored up. Physical geography, as an extra subject, has been attempted, particularly in girls' schools, but without much success. There are some of the chapters, such as that relating to the measurement and magnitude of the earth, which require a little acquaintance with geometry to understand, and though the subject is extremely attractive, yet few even in boys' schools can devote sufficient time to become familiar with its leading details.

Agriculture is a little better taught than heretofore. The teachers sometimes complain that the children in the fourth class are unable to read the book unassisted, and that any knowledge they possess of the subject must be communicated orally. The fifth and sixth classes read the book pretty regularly, though I occasionally find no copy in the school when I come to examine. On the whole, the instruction in agriculture appears to be given in only a half-hearted sort of way.

Needlework.—Instruction in needlework is carried on in all schools where there are female teachers employed. I always find a fair stock of materials on hands, though occasionally the number of thimbles in school would not supply one-fourth of the children learning to sew. The work is chiefly knitting and plain sewing. Shirts and under clothing for females are made in the schools, but since I came to the district I never saw a girl's dress on hands. A great drawback to success in this branch of the subject is, that there are no ladies of position in the district who take an interest in the matter.

I remain, gentlemen, your obedient servant,

F. Eardley, District Inspector.

The Secretaries, Education Office.

Mr. J. M. Loughnan.

General Report for 1876, by J. M. Loughnan, Esq., District 55—Centre, Macroom.

Macroom, March 4, 1877.

Gentlemen,—I have the honour to place before you my General Report on District 55, Official Centre, Macroom, for the twelve months ended 31st March, 1877.

This district occupies the north-western portion of the county of Cork, comprising within its area the entire of the barony of West Muskerry and the greater portions of the baronies of East Muskerry and Duhallow. With the exception of a few small mills and the anthracite collieries in Duhallow no industry requiring the united labour of many hands exists, rural pursuits, dairy-farming and agriculture, afford the chief employment of the people. Only one town, Macroom, contains a population exceeding 3,000. The parishes included in the district contain a total population, according to the last Census returns, of 66,832.

The diversified physical features and contour of the district render it somewhat unmanageable, and of course vastly increase the labours of an Inspector. In outline it may be roughly compared to the figure of eight, both extremities being thickly dotted over with schools, while the central portion consists of an extensive zone of unreclaimed mountain very thinly inhabited.

Two railways traverse the district, the Cork and Macroom, for a distance of about fifteen miles, and the Killarney branch of the Great Southern and Western for about twenty miles. These lines are almost practically useless for purposes of inspection, as few of the schools are situated in

the immediate vicinity of their stations, and the hours of arrival and departure of the trains render them inconvenient and unsuitable; moreover, these stations being chiefly rural are not attended by post cars, nor are they procurable by previous notice. No public cars available are running, hence the Inspector has almost exclusively to depend for his locomotion on the ordinary posting vehicle of the country—the outside car. In some remote, mountainous localities one has occasionally to resort to the saddle. This exposed mode of travelling in a bleak country remarkable for the humidity of its atmosphere in weather such as the past autumn and winter—not cold indeed—but incessantly wet and stormy, is attended with no slight hardship.

As the day fixed for holding a results examination must now be strictly adhered to, irrespective of distance or the inclemency of the elements, not as heretofore, when advantage might at least occasionally be taken of more genial weather to visit remote schools and a tempestuous day relegated to a shorter journey, the physical powers of the Inspector are frequently severely taxed. It may be said that by precautions in the way of waterproof wraps, umbrellas, &c., the roughest weather may be faced with impunity; such unfortunately, has not been my experience; during the past and previous winter, occasions have happened upon which owing to bridges having been carried away, or fords obliterated by the swollen streams rushing down from the adjacent elevations with unexpected rapidity and hardly conceivable violence, the horse has had to be disengaged, and the car dragged or ferried rather across by the driver and myself.

The schools under my supervision and at present in actual operation number 117. Of these 10 are vested in the Commissioners; 5 secured to them by bond; 50 vested in local trustees, and 52 not vested. Fifty-one schools are exclusively appropriated to the instruction of male pupils; 48 to female, and 18 intended for a mixed attendance of both sexes. The business of the ordinary National schools is carried on in 115 distinct apartments, exclusive of which are 3 Convent schools, occupying 11 apartments, and 3 Poor Law Union schools having 5. Macroom, Kanturk and Millstreet, have infant or preparatory schools under distinct roll numbers for male pupils of not higher than second class. The Religious Communities of these towns also have attached to their National schools and in connexion with them infant departments for females, to which at Millstreet Convent even male pupils of tender years are admissible. On the subject of infant schools, it has frequently occurred to me that in rural schools where there is a large attendance of infants, a smaller number of hours of attendance might be accepted from them with much advantage, where a separate apartment and teacher cannot be afforded. As at present when these children have any distance to come, I cannot help thinking but that the protracted fasting, together with the long confinement, must act injuriously on tender constitutions, and perhaps sow the seeds of future disease. In the school-house they cannot be kept constantly employed, and for more than half the day are a source of distraction and annoyance.

In addition to the above, the Commissioners have sanctioned grants in aid for the erection of two double schools to supersede one double and one mixed school now in operation, but whose buildings and premises are in a ruinous condition. These are to be vested in local trustees.

During the past year, the community of Nuns presiding over the Millstreet Female National School have largely and substantially added to their school-house already secured to the Commissioners by bond. I have no agricultural, industrial, or night school under my charge, and

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in one school only do half-timers (2) attend; these children are rural letter carriers, and manage with much advantage to themselves to put in two or three hours at school nearly every day.

As the state of school-houses and premises as to repairs, cleanliness, accommodation, &c., has from time to time during the year been brought under your notice, it will be unnecessary here to enter into further detail.

The certificated staff consists, at present, of 200 teachers of both sexes. Their classification is as under :—

	1st Class.	2nd Class.	3rd Class.
Males,	5	38	62
Females,	8	32	55
Total,	13	70	117

To the above must be added 4 workmistresses and 2 junior literary assistants, as well as 3 male teachers provisionally classified. There are besides employed 7 male and 3 female probationary, or yet unclassed teachers.

At the written examination held during Easter week, 7 male classed teachers, and 15 classed females presented themselves for promotion. On the same occasion 2 first class male, and 5 first class female monitors of final year of service attended. To the combined written and oral examination held by the Head Inspector, Mr. Sheehy, and myself, at a later period of the year, 9 unclassed male teachers, and 9 second class male monitors of final year of service, also 7 unclassed female teachers, 2 first class female monitors of second year of service, and 9 second class female monitors of final year were summoned.

In addition, 3 classed male teachers, 2 first class female monitors were recalled to an oral examination.

Of the teachers holding certificates recalled to this oral examination, two succeeded in obtaining a step of promotion, and the two first class monitors were classified.

The written exercises of the female teachers seeking promotion did not reach the standard of qualification required to entitle them to the oral test, and of the first class monitors only two were deemed worthy of classification. Two of the unclassified male teachers were dismissed for incompetency, three retained provisionally pending a future trial, and the remainder received certificates. With the exception of two, whose services were dispensed with, on the score of incompetency, all the female probationers were successful in obtaining certificates of third class. Three of the second class male monitors of final year have since been promoted to first class, the services of the other being discontinued.

Of the females of same class and year 6 have been promoted to the next higher grade in their respective schools, the others were not considered deserving of further employment.

On the first day of the present year 70 monitors of both sexes were employed throughout the district, and classed as under :—

	1st Class.	2nd Class.	3rd Class.
Males,	2	21	3
Females,	10	32	2
Total,	12	53	5

All first class monitors and all second class monitors of final year of service, are by a recent regulation of the Commissioners obliged to attend and be examined with the teachers. Allusion has already been made to the manner in which they acquitted themselves at these examinations. For the second class monitors of first and second years I held

examinations at Macroom and two convenient sub-centres. The third class monitors I examined in their respective schools. I am gratified to report that the answering, with few exceptions, was satisfactory, reflecting credit on their instructors, and in most instances securing to them the maximum gratuity. *Appendix A.* District Inspectors' General Reports.

I experience little difficulty in procuring candidates to supply vacancies caused by promotion or otherwise among the monitors allowed, and most frequently am obliged to make my selection by competitive examination. I am also guided by the answering and exercises of the last results examination. This practice appears to me calculated to produce a most wholesome effect, as it stimulates the higher class pupils at these examinations to their utmost efforts, both on their own behalf, and likewise in the benefit of their teachers—as each one knows that in the event of a vacancy for a monitor offering in the school his marks will be taken into consideration, and *cæteris paribus* may secure him the coveted prize. Though candidates come forward in sufficient numbers, the quality is not all that could be desired; the best pupils will not accept the position, and many eligible by acquirements, and even above the programme, have not the material in them to develop into future teachers. In their own interests teachers should use every exertion to instruct their monitors in the art of teaching—a part of their education now much neglected—as every advance in this direction must redound to their own professional and pecuniary benefit. *Mr. J. M. Loughnan.*

Contingent Results Fees.—The regulations recently issued by the Commissioners providing certain modifications under the National Teachers Act (Ireland), 1875, in reference to the participation in the benefit by teachers in non-contributory Unions of "contingent results fees" have in this district to a considerable extent been availed of. Here some trouble exists with regard to the collection of school fees, as, except in the towns, which are few, the prevailing custom is to pay them half-yearly. In some neighbourhoods this addition to the teacher's income is only made at intervals of twelve months, and then perhaps paid partly in kind; this renders it no easy matter for the person even most concerned to have the sum necessary to secure the contingent moiety made up for the twelve months corresponding to the results period, and the entries of receipts duly recorded in the school accounts. When the necessities of the case become fully known to parents, I hope to see this difficulty disappear; and every day experience shows that managers are bestirring themselves to provide against it in the future.

Of the unions, viz., Cork, Macroom, Kanturk, Millstreet, and Dunmanway, to some one of which all my schools may be referred, Cork and Kanturk were alone contributory during the past year. The Kanturk Union, which was, by the way, I believe the first in Ireland to give in its adhesion to the contributory system, has since rescinded its original resolution on the subject. As a good example, however, for others to copy, I must mention that the guardians of this union very graciously and generously on my suggestion, extended the system of payment by results, and supplemented the salaries of the three teachers employed in their workhouse by fees earned on the usual scale, and subject to the same restrictions as in ordinary National schools.

Reading.—On the whole the general proficiency and progress of the schools have been satisfactory. Though the absolute failures in reading at the results examinations, provided the pupil had got regularly through the required number of pages of his class-book, were not numerous, room for vast improvement still remains. The best pupils in advanced classes rarely exceed mediocrity; and I can only recall a few

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schools noticeable for really good reading. Moderate fluency, with a tolerable observation of punctuation, and an attempt at verbal correctness, constitute in most cases the highest aims of the teachers and attainments of the children. A highly-polished style of refined, elegant, or rhetorical reading is neither expected nor required, but at least it may be intellectual. The unnatural tone assumed, the want of ordinary animation or slightest modulation of the voice occurring amongst a peasantry generally distinguished by the expressiveness and pathos of their spoken utterances, might at first be matter for astonishment. The explanation is not far to be sought, even amongst teachers good readers are rare; and as the acquirement does not come by intuition, and better models are seldom within the sphere of the pupil, however much to be deplored, we must only condone the defect.

The explanation of the subject-matter of the lesson books has improved, still children come from time to time under my observation who can repeat *verbatim* a prose lesson or poetical piece, unable to give its purport in their own words, or answer simple questions, unless proposed in the most suggestive style.

Dictation.—Writing from dictation in third class and upwards has been successfully taught during the year. Oral and phrase spelling have received due attention, and with satisfactory results. When time permits I occasionally exceed my instructions, and try the second class in writing easy words in columns on slates from dictation; this, I believe, would form a useful introductory exercise to the programme requirements in spelling for third class, and if persevered in by teachers would smoothen down the obstacles attending the transition to the more advanced test.

Penmanship.—The style of penmanship is fair throughout, and in the least successful of the schools showing signs of improvement, legibility being adopted as the criterion. The head-lines in the recognised copy books are closely copied, and in a few instances the imitation borders on excellence. The copies are more neatly kept and better preserved than formerly, and as far as practicable marked and initialed each day by the teacher. The angular hand is now little affected, and has most wisely been discouraged by teachers, though female pupils of senior classes in their dictation and other written exercises sometimes revert to it, as they imagine this style can be written with greater ease and rapidity. I have constantly to complain of the bad and awkward position assumed by the children when engaged at their writing lesson; also the faulty method in which the pen is usually held. A stranger entering some of the schools might almost be induced to believe that one-half the pupils was short-sighted, and that the other had crooked necks. Till badly-lighted, overcrowded houses, ill-constructed and rickety desks and forms altogether disappear, a high standard of excellence can never be attained.

Arithmetic.—Proficiency in arithmetic has improved; the introduction of printed cards at first told somewhat against the answering. Pupils who experienced little difficulty in working from manuscript sometimes exhibited confusion when printed cards were placed before them, having hitherto been familiarized with questions written on slates or the black board. This disadvantage no longer exists, the teachers having met the difficulty by the adoption and use of cards almost identical in appearance and matter with those issued to the Inspectors. Sufficient attention has not yet been bestowed, at least in senior classes, on the theory of arithmetic, or the reasons for the different methods employed in the various rules; and too often does a deplorable ignorance of the most simple

technical terms and simple rules manifest itself. As pupils advance they have the greatest reluctance in trying back, but in no subject is repetition of more vital importance than in this. Many teachers appear to think that a theoretical knowledge does not form a specific requirement of the programme. Of this idea I have always endeavoured, and latterly with some success, to disabuse them.

A more direct allusion to this point might perhaps be profitably introduced into the programme.

The questions are mostly worked with tolerable neatness and precision, and as much careful attention is required to secure this desirable end, a fair guide is afforded to the general character of the school. With this view I encourage the use of fair exercise books, in which are entered all questions either presenting peculiar difficulties or involving principles.

Compared with its great usefulness, mental calculation is by no means sufficiently cultivated.

Agriculture.—It is strange and inexplicable what an uncongenial subject agriculture is in the majority of the schools and the very small amount of interest it awakens, intimately connected though its practice with the every-day life of the pupils. In some schools it is totally neglected, in many others the alternative book-keeping preferred. Hitherto there may have been some excuse, as the class book originally in use was, though of great practical usefulness to grown pupils, of somewhat too diffuse, advanced, and scientific a character for junior pupils.

The addition of "The Introduction to Practical Farming" to the list of works sanctioned by the Commissioners has thoroughly supplied this want. The study of agriculture might, I think, be further popularized and the necessity for regarding it as a special subject perhaps obviated by the introduction of easy lessons into the reading books.

Needlework.—The female teachers and pupils are all alive to the vast importance of this industrial branch of training, and many grown girls now attend with little other object than to acquire facility in the use of the needle. The specimens exhibited are of a useful character and neatly and substantially executed. Knitting throughout the district is above the average, some localities being famous for this species of work. Reasonable time is also allowed to embroidery and other kinds of fine art needlework where perfect proficiency has been attained in the plainer descriptions. In the neighbourhood bordering on the city of Cork such is the request for crochet and other fancy work and so remunerative the prices offered that many children remain away from school and devote their time to supply the demand.

Extra Branches.—Extra branches are not much in vogue; male pupils have however been presented in Euclid, algebra, mensuration, physical geography, physiology and botany.

The answering in the four first was tolerably fair, in the others, as might be expected, not so satisfactory. To remove the temptation to labour in vain, yielded to frequently by young and inexperienced teachers, by endeavouring to impart a knowledge of branches with which they are themselves but slightly or imperfectly acquainted, I would suggest that no fees should be payable to a teacher for any extra subject, to give instruction in which he had not already received a certificate of competency from the Commissioners. This might be easily carried out. Some of the subjects are at present included in the teachers' programme; for a certificate in others, they might be allowed to present themselves in the ordinary way at the district annual examinations. Instruction is given to females in vocal music, drawing, physical geography, and the

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sewing machine. It is much to be regretted that this instrument is not in much more general use, and also that domestic economy in some of its many branches has not yet been attempted.

Grammar and Geography.—In schools where the attendance is tolerably regular and the teaching staff sufficient grammar and geography are fairly known, but where the numbers fluctuate, being perhaps a few below what would justify the employment of an assistant teacher, these subjects generally suffer. Comparatively speaking, the third class is always best up to programme in geography, the fourth, as in all other subjects, the weakest. In the higher classes the acquaintance with the text is chiefly confined to the topography of countries, their political history, &c., receiving little attention. The proficiency in grammar has improved considerably; till the last few years, it would not appear to have been systematically taught. I often meet overgrown pupils, who have rejoined school from domestic service or business for a final polish, though fairly up in other subjects, ignorant of the simplest rudiments.

Except as to form, the letter-writing exercise required of sixth class is seldom well done. No matter what the theme proposed the pupils rarely keep to it, but write on something totally different, on which they had been previously practised, or treat one to a few elegant extracts from a "Ready Letter Writer."

Portions of three Roman Catholic dioceses are comprised in the district, namely, Cork, Cloyne, and Kerry. This circumstance, in a locality where the children attending the National schools are almost exclusively Roman Catholic, is not without its effect. During the summer months, owing to the occurrence of the annual visitations of the bishops of these dioceses to some one or other of their parishes, the pupils were to some extent necessarily withdrawn from the schools for extra religious instruction preparatory to confirmation, and the time of secular instruction limited to the bare four hours required by the Commissioners.

This period of the year, though otherwise favourable for results examinations, was not in consequence deemed so by managers and teachers; and though both willingly co-operated with me in contending with the inconvenience, it was often embarrassing, owing to changes and postponements, to carry out the calendar. However desirable it is, and anxious one may be, to meet the views of managers, any departure from previous arrangements—now requiring much forethought—cannot be otherwise than productive of inconvenience and loss of time to the Inspector.

Attendance.—The usual causes of irregularity of attendance still continue—poverty and indifference, which during the past school year have been intensified by the continual rains effectually detaining the juniors at home, and the prevalence of epidemics—measles, scarlatina, and typhoid fever. Where schools are easy of access severe weather should not have that depressing effect on the average attendance, which is generally put forward. Idleness then reigns at home and the children are at liberty to attend school. This is most apparent where the school-house affords a comfortable retreat, and should in the absence of no higher motive be a powerful incentive to managers and teachers to provide fires and render the school-room otherwise as attractive as possible. Next to irregularity of attendance the neglect of preparation of home tasks is a sad drag upon the labour of the teachers. The labour of even a child is now so valuable that little or no time except what he spends in the school-room is allowed him for study; hence, however vicious the system is, there can be no doubt that time which should be otherwise usefully employed is devoted in school hours to the preparation of tasks.

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The dwellings of the poorer portion of the population are so miserable, their home comforts so restricted, and distractions so numerous, that a child should be more proof than ordinary mortals against the disturbing influences of the exterior world to apply himself under such circumstances.

Mr. J. M. Loughnan.

In the accompanying table is given a comparative view of the progress of the district in respect of attendance, pupils examined for results, &c., for the past five years :—

	1872-3.	1873-4.	1874-5.	1875-6.	1876-7.
Schools examined for results,	110	111	111	114	117
Average on rolls,	13,151	12,693	14,028	14,704	14,814
Do. in attendance,	6,387	6,502	8,000	7,935	8,230
Qualified by 90 attendances,	7,434	7,734	9,782	9,962	9,738
Absent from examination,	1,265	490	335	517	539
Actually examined for Results,	6,169	7,244	9,447	9,445	9,199

I cannot conclude this report without testifying my obligations to the managers for the kindness and affability which I have received in all my associations with them ; nor must a modicum of praise be withheld from the teaching staff, whose conduct during the year has been most exemplary, and whose trying duties have been discharged with conscientious regularity.

I have the honour to be, gentlemen, your obedient servant,

J. M. Loughnan, District Inspector.

The Secretaries, Education Office.

Mr. J. Macdonnell.

General Report for 1876, by J. Macdonnell, Esq., District 58—Centre, Bantry.

Bantry, 10th March, 1877.

Gentlemen,—I have the honour to submit, for the information of the Commissioners, the following general report on the schools of the district for the past two years.

The district occupies the south-western part of county Cork and the south-eastern part of county Kerry, and extends along the sea-coast for more than 300 miles.

The schools are well distributed as centres of education, and in general the sites are well selected. The prospect from about three-fourths of the houses is very pleasing, and includes a view of the sea.

In no portion of the district are the schools too numerous, but in two parishes, Kilnamanagh and West Schull, additional schools are much required. There are large and populous districts in these parishes in which the children are growing up without school education of any kind. Efforts have been made from time to time to get up schools in these places, but, owing to the difficulty of procuring sites and the want of local support, without success.

Number of schools in operation in district :—

Ordinary town and rural schools,	110
Convent schools,	3
Poor Law Union schools,	4
Total,	117

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Ten of these are in islands, twenty-nine in towns and villages, and eighty-eight in the country.

Number of schools vested in the Commissioners,	.	31
" vested in Trustees,	.	7
" non-vested,	.	79

The houses vested in the Commissioners are in general suitable buildings, and in good repair. The houses vested in trustees are also suitable and in a fair state of repair; and a large number of the non-vested buildings are tolerably fair, but nine of them are bad in every respect. To replace these bad houses, seven new buildings are in course of erection, and will be completed during the year. Four of these are vested in the Commissioners, one in trustees, and two are non-vested.

In connexion with school buildings I had in several cases last year to call the attention of the Commissioners to the insufficiency of school space, bad outside appearance of houses, wet floors, and want of fires during the winter. If the houses were more comfortable the attendance of pupils in the winter, in several parts of the district, would be much better than it is. Only a few of the non-vested schools have outoffices, and in consequence the sanitary condition of these schools is far from being satisfactory. Now that the Sanitary law is in operation in this country, I think that every point in connexion with the sanitary state of schools should be more carefully looked after than hitherto.

I think also that more attention should be given in future to the outside appearance of the school-houses. The school-house ought to be one of the best in the neighbourhood, and should indicate by its appearance alone the purpose for which it is intended.

Four new schools were taken into connexion with the Board during the past two years. Two of them—Eyeries male and female—are new buildings and vested in the Commissioners; one—Castletown Berehaven Mines—is an old building, non-vested; and one—Scart—is a new building containing two good rooms, and is non-vested.

Management:—

2	schools are under the management of	Rectors of the late E.C.
96	" " "	Priests.
1	" " "	Wesleyan Minister.
3	" " "	Superiors of Convents.
10	" " "	Land Agents.
4	" " "	Poor Law Guardians.
1	" " "	Manager of Mines.

In general the managers take a fair degree of interest in the schools, and co-operate in the best spirit with the Inspector in matters regarding them.

Teachers:—

	Principals.	Assistants.	Total.
Number in Class I^1,	1	–	1
" I^2,	7	1	8
" II^1,	35	2	37
" II^2,	11	3	14
" III^1,	48	34	82
" III^2,	13	31	44
Totals,	115	71	186

The teachers of two Convent schools are not included. From this return it appears that more than one-half of the principal teachers and more than nine-tenths of the assistants are in the lowest class. This certainly is not satisfactory, more especially as every encouragement is given to deserving teachers to attend the annual examinations with a

view to their promotion. Only comparatively few of the teachers evince any desire to attend the examinations. In my opinion, young teachers, who are satisfied to remain in lowest class, and who will not make proper efforts to qualify themselves for promotion, are not the kind of persons who should be entrusted with the training of youth. On the contrary, teachers should set an example to their pupils of perseverance in everything connected with their duties.

The private characters of the teachers in general stand high, and I believe that, with few exceptions, they are anxious, from a sense of duty alone, to keep the school accounts correctly. During the past two years I met with only one instance, the case of a young teacher, in which the accounts were falsified. Seventeen teachers were promoted during the past two years at the annual examinations, and twenty-five were advanced from the second to the first division of their respective classes on the state of their schools.

Number of teachers trained :—

Principals,	49
Assistants,	4
Total,	53

Number of teachers untrained :—

Principals,	66
Assistants,	67
Total,	133

Except in a small portion of the district the Roman Catholic teachers are prohibited from going to the training class.

In a district such as this, where so many of the teachers are in lowest class, and so many untrained, I think it would be desirable that arrangements should be made to enable the Inspector to meet the teachers occasionally at central places, to talk with them over matters connected with their business.

Only few teachers in this district leave the Board's service for other employment. Last year one, a principal teacher, got an appointment in the Civil Service, and one, a female assistant, went to a Convent. The others who left the service did so for various domestic reasons.

Monitors :—

	Males.	Females.	Total.
Number in First Class,	5	5	10
„ Second Class,	13	36	49
„ Third Class,	6	–	6
Totals,	24	41	65

This number, which gives one monitor for every 104 pupils in average attendance, is far below the number required.

Fourteen monitors were classed as teachers at the final examinations during the past two years, and most of these have since been appointed as assistant teachers. Last year, 4 male monitors and 4 females were appointed as assistants. Were it not for the supply of monitors available, suitable male assistant teachers could not be obtained in this district. About the same number of monitors as were classed, were allowed to retire from the service at the termination of their course, as their answering at the final examinations did not come up to the required standard.

Examinations of monitors of first and second year were held at three different sub-centres last year, and at five sub-centres in the previous

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year, and several others were examined in their own schools. The answering at these examinations was fairly satisfactory, and I was able in almost every case to recommend gratuities to their respective teachers. The present system of examining these monitors is not, I consider, as good as the old one, and it entails much more labour on the examiner.

Inspection.—The number of miles travelled on inspection duty in the district during the past year was 3,819. This gives an average of twenty-three miles for every day on inspection duty. The cost of car and boat hire was £89 17*s.* 8*d.* I could do the work as well and cheaper by driving my own horses. The number of schools examined for results was 117, including two examined by Head Inspector; the number examined for secondary reports was thirty-four; and the number of incidental visits paid was eighty-nine.

The duties of inspection have become so laborious and wearisome as to tax to the utmost the energies of the best men in the service. Under the circumstances I think it would be wise to allow every Inspector the use of a clerk to assist him in office work.

Attendance.—The following table shows the attendance of pupils during the past two years:—

	1875.	1876.
Number on Rolls on last day of month preceding results examination,	11,025	11,916
Number examined for results,	6,910	7,194
Average attendance for year ending quarter day preceding examination,	6,145	6,771

Increase in year 1876 over year 1875:—

Number on Rolls,	891
Number examined for results,	284
Average attendance,	626

The average attendance per school for the year 1875 was 55·4, and for the year 1876 59·9. The increased attendance is one of the consequences of the results system.

I observed last year in several instances that teachers hesitated to put forward pupils for examination who were not fairly prepared, and in consequence there were more pupils absent from the examinations last year who had made the required attendances than in the previous year. In the year 1875, for every 100 pupils in average attendance, 120 were examined for results, and in 1876 for the same number in average attendance only 116 were examined for results.

The following table shows the classification of the pupils on the rolls last year:—

Infants,	2,436,	per cent. of the whole,	20·4
First Class,	2,819	„	23·7
Second „	2,145	„	18·0
Third „	1,746	„	14·7
Fourth „	1,352	„	11·3
Fifth, 1st Stage,	802	„	6·8
„ 2nd Stage,	351	„	2·9
Sixth „	265	„	2·2
Total,	11,916		100·0

Proficiency.—The answering of the pupils in the first twenty schools which were examined for results last year was carefully tabulated, and the average per-centage of marks obtained in each subject ascertained. These schools are a fair sample of the schools of the district, and the pro-

ficiency of the pupils in them may be taken as an index of the proficiency in the others. (Infants are not included.)

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Reading,—Average per-centage of marks obtained,	.	89·5
Spelling, " "	.	83·1
Writing, " "	.	96·0
Arithmetic, " "	.	69·2
Grammar, " "	.	61·7
Geography, " "	.	49·8
Average,	.	74·8

From this it appears that the proficiency in reading, spelling, and writing, was fair; in arithmetic and grammar middling, and in geography unsatisfactory. It appears also that in the aggregate of every 100 marks obtainable 74·8 were actually obtained.

Taking all the circumstances of the district into consideration the degree of proficiency indicated above is perhaps as fair as might reasonably be expected, and especially as upwards of 91 per cent. of the pupils were examined in higher classes than in the preceding year.

Needlework.—Number examined in needlework last year, 2,210. The pupils were required to show samples of work done during the year, and to execute specimens in presence of the examiner. In a large number of schools I found a creditable degree of proficiency, but in several others I had to complain of the quality of the work, and of the want of sufficient materials. I take great care in examining the needlework, as I consider that to foster and encourage a taste for needlework in their pupils is one of the most important duties of our female teachers.

Singing.—Number examined last year, 262. In two Convent schools singing is taught with much success, but it is only attempted in one other school in the district. I am decidedly of opinion that singing should form part of the education of the pupils in every National school, and I think the Commissioners would be acting wisely if they appointed a singing master to every school district in Ireland, to instruct the teachers in the first instance. If our people were able to sing about their own firesides in the evenings, the public houses would be less frequented.

Drawing.—Number examined, 168. In one Convent school only drawing is taught with a fair degree of success. It has recently been introduced, and with some promise, into a few other schools.

Agriculture.—Number examined last year, 419. The answering in this subject was in general of an inferior character. The Agriculture Class Book, though an excellent work, is not suited for children; but the new work, "The Introduction to Practical Farming," is admirably adapted for our schools. As this new work is not well known to the teachers I would suggest that a copy of it should be sent to every male teacher in the district. In no part of Ireland is agriculture in a more backward state than in this district.

Extra Branches:—

Number examined in Geometry and Mensuration,	.	153
Do. " Algebra,	.	114
Do. " Book-keeping,	.	152

The answering in mensuration was in general of a fair character, but it was only in a few of the best schools that the boys were able to write out the demonstrations of simple propositions in geometry with logical accuracy.

The value of geometry as a subject of education is much lessened by the loose and unscientific manner in which it is taught in a large number of the schools.

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The answering in algebra was much better than in geometry. I found a considerable number of boys able to work readily ordinary questions in simple and quadratic equations.

From the careless manner in which the exercises were written and the want of knowledge of the subject, I was able to pass only comparatively few in book-keeping.

Conclusion.—Considering that there were 113 schools, conducted by 186 teachers and attended by 11,916 pupils, in active operation during the year; that 7,194 pupils went through a strict and formal examination and acquitted themselves fairly; and that more than nine-tenths of these pupils had been promoted from a lower to a higher class during the year, it will I trust be admitted that the state of education in the district is, if not satisfactory in every particular, at least progressive and cheering.

I have the honour to be, gentlemen, your obedient servant,

J. Macdonnell, District Inspector.

The Secretaries, &c.

Mr. T. Macnamara.

General Report for 1876, by T. Macnamara, Esq., District 57—Centre, Killarney.

Killarney, March 31, 1877.

The number of National schools examined by me for results fee payment during the financial year ended March, 1877, was 96. The remaining 34 were examined by Mr. Moran, District Inspector, whose valuable assistance was rendered necessary by an attack of illness with which I was seized at the close of December. In these 130 schools 9,904 pupils were presented for examination—8,103 passed in reading, 6,144 in spelling, 7,163 in writing, 3,565 in arithmetic, 2,001 in grammar, and 1,708 in geography. The examinations were directed in every school to the sub-heads of the programme with a view to checking the possible bent of the teachers' exertions for the attainment only of the minimum amount of proficiency necessary for passing. I found generally that the more important parts of these sub-heads have been regarded by the teachers, that questioning and explaining still form a large part of the teaching. It must be observed, however, that some falling off in the facility with which the pupils answer questions of explanation is noticeable. The more rapid promotion consequent upon result examination hinders the surer acquirement which a slower rate of progress produced. But I have no objection to raise to results examination. In my opinion the method has done good service as regards the efficient working of the schools; has in no way really impaired the proficiency, and has assuredly stimulated the rate of progress very essentially. The serious objection to it is the large amount of exhausting labour it costs the Inspector.

The increase in the general attendance is very remarkable, and is sure evidence of the better estimate in which the exertions of the teachers are held by the pupils and parents. I calculate that the increase on an average amounts to 21 per cent. in the schools of this district. No doubt the fair measure of prosperity among the rural population, and the increase in the population itself have ministered to this increase.

The teachers have not fallen off in efficiency, their professional energy has been much stimulated by the considerable improvement in their circumstances recently brought about.

There is no difficulty in finding eligible young men to take assistantships in the schools, and when a vacancy occurs for a principal teacher there are always a number of classed teachers to offer as candidates.

A certain number of the assistants are aspirants for the Civil Service, and several were successful during the year at the examinations. Their places were readily supplied.

The moral tone of the schools, evidenced in the general extinction of attempts at dishonest answering, is a most gratifying characteristic of the year's progress.

The teachers and pupils have become fully aware of the heinousness of such mean attempts in the eyes of the Commissioners, and now they are of very rare and unpremeditated occurrence.

The pupils present themselves in very cleanly tasteful order. The girls display particularly becoming personal cleanliness and neatness. Their progress in sewing and kindred branches has been satisfactory. Of 3,086 girls examined in sewing 2,857 passed.

The school-houses of this district, being mostly vested buildings, and a large number being vested in the Commissioners, are spacious, and are kept in fair repair.

Consequent on the increased attendance of pupils, eight school-houses have been enlarged. The enlargement of about ten others is in contemplation. There are four new vested houses nearly complete, and there are five which will be in course of building during the approaching summer.

Three temporary schools in inferior buildings were opened pending the erection of projected houses.

All circumstances considered, National Education continues in this district to diffuse very great benefits among the population, and in my opinion, as regards solid value, contrasts very favourably, as far as its scope extends, with the education given in any other schools in this country, public or private.

T. Macnamara,
District Inspector of National Schools.

To the Secretaries.

APPENDIX B.

Carlisle and Blake Fund Premiums for Years 1875–6 and 1876–7.

	Year 1875.				Year 1876.			
	Teacher.	School.	District.	Premium.	Teacher.	School.	District.	Premium.
				£				£
Head Inspector Fleming's Circuit	George Begley,	Portaferry,	10	7	William Erskine,	Ballywalter,	10	7
	David Geddis,	Edenderry,	11	6	Patrick Keenan,	Corracrin,	18	6
	Agnes Murray,	Whiteabbey, f.	8a	4	John Wright,	Crossgar,	17	4
,, Patterson's ,,	Michael Healy,	Tinahely,	39	7	Denis Howley,	Caherline,	46	7
	Margaret Regan,	Prosperous,	37	6	Kate Kelly,	Inistioge, f.	47	6
	James Garrett,	Johnstown,	43	4	Arthur Curran,	Mountmellick, m.	41	4
,, Fitzgerald's ,,	Sarah Doherty,	Bessbrook, f.	19	7	Richard Fox,	Ballivor, m.	29	7
	Ellen Quigley,	Keadue, f.	22	6	Maria Shortt,	Ballybough, f.	30	6
	John Conlon,	Tang, m.	33	4	Thomas Farrell,	Aughnadarry,	27	4
,, Molloy's ,,	Cornelius M'Dermott,	Cooraclare,	45	7	John Mulcahy,	Templeglentane,	52	7
	Mary Duane,	Gortnanumera,	35	6	Edward M'Grenahan,	Roscrea, m.	36	6
	Hugh Brady,	Ruan,	42	4	John Carrick,	Lackagh,	34	4
,, Sheehy's ,,	John O'Donnell,	Farnakilla,	54	7	John Crawford,	St. Luke's,	60	7
	Mary Daly,	Ballygarvan,	60	6	Kate Mahony,	Passage, East,	49	6
	Ellen Scannell,	Castlemartyr,	48	4	John O'Leary,	Tallow,	48	4
,, Morell's ,,	Patrick Clarke,	Derrylin,	31	7	Hugh O'Donnell,	Letterkenny, m.	1	7
	Margaret J. O'Reilly,	Glenties,	5	6	Thomas Mahon,	Glin, m.	31	6
	Thomas Loughlin,	Cornagee, No. 1,	13	4	John C. Ward,	Killybegs,	5	4

APPENDIX C.

Appendix C.

List of retired Teachers.

LIST of SIXTY-EIGHT TEACHERS who, from AGE and INFIRMITY, RETIRED from the SERVICE of the BOARD during the period between 31st December, 1875, and 31st March, 1877, and received Retiring Gratuities.

County.	Roll No.	School.		Teacher.
Antrim,	8722	Brown-street,	f.	H. M'Cullagh.
,,	6634	Woodburn,	.	J. Graham.
,,	8388	Earl-street,	f.	M. A. Rogers.
,,	8804	Wolfhill Mill,	.	S. Barbour.
Armagh,	8621	Derrycughan,	.	J. E. Rolston.
Cavan,	9433	Ravenswood,	.	P. Brady.
,,	4592	Cullies,	.	J. M'Cabe.
,,	5249	Curlurgan,	.	A. Elliott.
,,	9267	Drumcrow,	.	F. Sheridan.
,,	2738	Finternagh,	m.	T. Gray.
,,	2739	Do.,	f.	A. Clarke.
Donegal,	2146	Gortahork,	.	J. Sweeny.
Down,	1365	Legannany,	.	J. M'Evoy.
,,	3067	Castlewellan,	f.	C. A. Gilmore.
,,	7062	Glastry,	.	P. Dorrian.
,,	9428	John-street,	m.	E. Ceillier.
,,	7043	Annaclone,	.	J. Dunlop.
Londonderry,	1195	Anahorish,	.	J. M'Williams.
,,	4407	Roe Mill,	.	M. M'Gowan.
,,	1816	Rosnagallagh,	.	M. Curry.
Monaghan,	3845	Tiernaneal,	.	J. Blackburne.
,,	363	Tullynahattina,	.	W. Smith.
Tyrone,	3046	Sciencien,	.	J. O'Beirne.
,,	2846	Trummogue,	.	J. Conlon.
,,	419	Dunamore,	.	J. Monaghan.
Cork,	2329	Killavullen,	.	T. M'Carthy.
,,	4837	Glanworth,	m.	B. Mahony.
,,	486	Ladysbridge,	.	W. Lynch.
,,	513	Ballintotas,	.	J. Downey.
Kerry,	1396	Tullaha,	.	T. Moynahan.
,,	1139	Blennerville,	m.	D. Reidy.
Tipperary,	584	Cloneen,	.	W. Keane.
,,	3486	Borrisoleigh,	.	H. Ryan.
Carlow,	1117	Ballinkillen,	f.	C. Walshe.
,,	684	Tinryland,	.	H. Kirwan.
Dublin,	–	Central Model,	.	M. F. Clarke.
,,	743	St. James's,	f.	A. M. Greene.
Kildare,	2291	Kildangan,	.	P. Quinlivan.
,,	785	Rathangan,	.	A. Dalton.
,,	1497	Newtown,	.	S. Coonan.
Kilkenny,	1717	Gowran,	m.	M. Hogan.
,,	6290	Templeorum,	.	M. Reid.
,,	5777	Listerlin,	f.	E. Cahill.
Longford,	5116	Lenamore,	.	M. Jennings.
Louth,	2326	Tenure,	m.	J. Fearon.
Meath,	1424	Kilmainham Wood,	.	J. Smith.
,,	4852	Slane,	.	A. Matthews.

Appendix C

List of retired Teachers.

LIST of SIXTY-EIGHT TEACHERS, &c.—*continued.*

County.	Roll No.	School.	Teacher.
Queen's,	6129	Loughtague,	J. Condron.
,,	4525	Aughnahilla,	C. Dunne.
Westmeath,	940	St. Mary's,	P. Cooke.
,,	,,	Do.,	M. Cooke.
,,	6191	Milltown (3),	T. Bateman.
,,	2263	Crowanstown,	B. Connell.
Wexford,	961	Kilmore,	W. O'Neill.
,,	956	Claristown,	P. Lennon.
,,	5069	Ballymurn,	W. Ryan.
Galway,	8603	Kilconnell, f.	H. Joyce.
Leitrim,	7582	Allenview,	P. Durkin.
Mayo,	9898	Drumslide,	M. A. Langan.
,,	10673	Barna,	H. Coyne.
,,	5238	Lisaniska,	M. Sweeny.
,,	10680	Crossmolina, f.	H. Walsh.
Roscommon,	5843	Faughmaconnell,	M. Killeen.
,,	1081	Boyle, m.	D. Fallon.
,,	5783	Glanduff,	J. Kelly.
Sligo,	4489	Castlerock,	C. Jennings.
,,	7251	Carrowreagh,	M. Horan.
—	–	Model Schools,	J. Washington.

DUBLIN: Printed by ALEXANDER THOM, 87 & 88, Abbey-street,
Printer to the Queen's Most Excellent Majesty.
For Her Majesty's Stationery Office.

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THE REPORT

OF THE

PRESIDENT

OF

QUEEN'S COLLEGE, BELFAST,

FOR

THE YEAR ENDING OCTOBER, 1876,

WITH

A RETURN OF STUDENTS FOR THE SESSION CLOSING JUNE, 1877.

Presented to both Houses of Parliament by Command of Her Majesty.

DUBLIN:
PRINTED BY ALEXANDER THOM, 87 & 88, ABBEY-STREET,
PRINTER TO THE QUEEN'S MOST EXCELLENT MAJESTY,
FOR HER MAJESTY'S STATIONERY OFFICE.

1877.

[C.—1758.] *Price 7d.*

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THE REPORT

OF THE

PRESIDENT OF QUEEN'S COLLEGE, BELFAST,

FOR

THE YEAR ENDING OCTOBER, 1876.

TO THE QUEEN'S MOST EXCELLENT MAJESTY.

MAY IT PLEASE YOUR MAJESTY,—

I have the honour and satisfaction of presenting to Your Majesty the following report on the condition and progress of this College, embracing the year ending October, 1876, and in respect to general statistics, the session 1876–7 just drawing to a close. I think it my duty to bring this report up to the present date inasmuch as a better means is thus afforded of comparing the returns from the three Queen's Colleges in Ireland.

During the session ending October last the number of students who had attended in the various departments of Arts, Engineering, Law, and Medicine, were 393, of whom 353 were matriculated and 40 non-matriculated, the number of new entrances being 115, of whom 91 were matriculated and 24 non-matriculated. The return for the session now closing shows a remarkable increase both in respect to the total number of students in attendance and to the new entrances, there being 437* in attendance, of whom 151 were new students.

The following returns show this in detail :—

I.—RETURN of the NUMBER of STUDENTS attending in the several Faculties during the Session 1875–76.

Arts,		119	
Civil Engineering,		14	
Law,		29	
Medicine—Matriculated,	200	226	
,, Non-matriculated,	26		
Various—Matriculated,	5	14	
,, Non-matriculated,	9		
		402	
	Less	9	Duplicates.
		393	

* Since the returns in the body of the Report were printed, 12 additional students have entered.

II. RETURN of the NUMBER of STUDENTS attending in the several Faculties during the Session 1876–77.

Arts,	120
Civil Engineering,	13
Law,	24
Medical,	268
Various,	12
	437*

It will thus be apparent that in the present session there has been an increase of 44 students in attendance.

The following tables, which I think it right to bring into the body of the Report, instead of the Appendix, show the condition and progress of the College from its inauguration in the session 1849–50 to the session ending October, 1876 :—

I.—NUMBERS and RELIGIOUS PERSUASIONS† of STUDENTS attending Lectures in QUEEN'S COLLEGE, BELFAST, in each Session from its opening.

SESSIONS.	Matriculated.	Non-Matriculated.	Total.	Church of Ireland.	Roman Catholic.	Presbyterian.	Methodist.	Independent.	Various.	Total.
1849–50,	90	105	195	33	5	145	4	1	7	195
1850–51,	110	75	185	33	10	136	4	1	1	185
1851–52,	120	69	189	40	14	129	5	–	1	189
1852–53,	101	53	154	33	15	100	4	–	2	154
1853–54,	114	54	168	36	14	107	6	–	5	168
1854–55,	118	65	183	34	14	131	3	–	1	183
1855–56,	119	74	193	33	19	131	5	2	3	193
1856–57,	136	58	194	35	14	131	3	2	9	194
1857–58,	153	54	207	31	14	154	4	1	3	207
1858–59,	160	63	223	45	14	153	8	2	1	223
Average of first 10 years,	122·1	67	189·1	35·3	13·3	131·7	4·6	·9	3·3	189·1
1859–60,	199	58	257	43	16	184	8	2	4	257
1860–61,	239	73	312	57	22	216	7	–	10	312
1861–62,	299	76	375	59	17	266	13	4	16	375
1862–63,	335	53	388	61	24	275	11	3	14	388
1863–64,	340	47	387	63	26	261	10	3	24	387
1864–65,	356	49	405	58	22	285	9	1	30	405
1865–66,	360	53	413	60	19	281	13	2	38	413
1866–67	357	30	387	57	19	225	18	1	67	387
1867–68,	357	33	390	59	16	233	25	2	55	390
1868–69,	330	38	368	51	15	220	26	2	54	368
Average of second 10 years,	317·2	51	368·2	56·3	19·6	244·6	14·0	2·0	31·2	368·2
1869–70,	328	25	353	57	18	214	19	3	42	353
1870–71,	337	43	380	76	14	226	22	4	38	380
1871–72,	325	33	358	80	17	203	12	1	45	358
1872–73,	328	23	351	79	15	203	21	1	32	351
1873–74,	344	31	375	87	17	201	26	2	42	375
1874–75,	346	47	393	85	11	223	24	3	47	393
1875–76,	353	40	393	70	17	222	29	2	53	393

* In this return the duplicates are rejected.

† I have thought it right to classify the students of the various Churches as they designate themselves in the forms filled up by them at entrance.

II.—Numbers and Religious Persuasions of Students who have entered Queen's College, Belfast, in each year since its opening.

Sessions.	Matriculated.	Non-Matriculated.	Total.	Church of Ireland.	Roman Catholic.	Presbyterian.	Methodist.	Independent.	Various.	Total.
1849–50, . .	90	105	195	33	5	145	4	1	7	195
1850–51, . .	51	42	93	15	7	68	1	–	2	93
1851–52, . .	42	40	82	25	7	47	2	–	1	82
1852–53, . .	31	23	54	16	7	28	2	–	1	54
1853–54, . .	39	23	62	14	5	36	3	–	4	62
1854–55, . .	41	38	79	13	6	56	2	–	2	79
1855–56, . .	33	29	62	17	5	36	2	2	–	62
1856–57, . .	40	28	68	18	4	40	1	–	5	68
1857–58, . .	43	28	71	8	6	55	2	–	–	71
1858–59, . .	51	37	88	24	8	51	4	1	–	88
Entered first 10 years,	461	393	854	183	60	562	23	4	22	854
1859–60, . .	66	24	90	14	6	64	4	–	2	90
1860–61, . .	96	41	137	29	13	85	3	–	7	137
1861–62, . .	114	38	152	27	5	101	6	3	10	152
1862–63, . .	115	22	137	23	12	92	5	–	5	137
1863–64, . .	109	18	127	25	5	86	3	–	7	127
1864–65, . .	108	27	135	22	6	97	3	–	7	135
1865–66, . .	88	30	118	17	7	83	5	–	6	118
1866–67, . .	95	12	107	16	6	61	10	–	14	107
1867–68, . .	90	22	112	20	5	63	1	1	22	112
1868–69, . .	79	24	103	16	7	60	6	2	12	103
Entered in second 10 years,	960	*258	1,218	209	72	792	46	7	92	1,218
Total in 20 years,	1,421	651	2,072	392	132	1,354	69	11	114	2,072
1869–70, . .	83	15	98	23	8	54	4	1	8	98
1870–71, . .	84	30	114	36	2	57	8	1	10	114
1871–72, . .	78	25	103	28	6	50	5	1	13	103
1872–73, . .	99	14	113	33	6	60	9	–	5	113
1873–74, . .	98	25	123	28	6	63	13	2	11	123
1874–75, . .	102	32	134	33	3	78	5	3	12	134
1875–76, . .	91	24	115	18	10	69	7	–	11	115
	2,056	*816	2,872	591	173	1,785	120	19	184	2,872†

III.—Return of the Number of Medical Students in attendance in each Session.

Session.	Matriculated.	Non-Matriculated.	Total.	Session.	Matriculated.	Non-Matriculated.	Total.
1849–50,	28	27	55	1863–64,	110	33	143
1850–51,	20	35	55	1864–65,	126	25	151
1851–52,	25	39	64	1865–66,	130	29	159
1852–53,	29	33	62	1866–67,	157	17	174
1853–54,	29	37	66	1867–68,	163	18	181
1854–55,	39	36	75	1868–69,	150	24	174
1855–56,	33	48	81	1869–70,	145	22	167
1856–57,	36	25	61	1870–71,	168	26	184
1857–58,	35	32	67	1871–72,	162	25	187
1858–59,	45	34	79	1872–73,	174	14	188
1859–60,	56	39	95	1873–74,	175	30	205
1860–61,	70	46	116	1874–75,	184	36	220
1861–62,	81	48	129	1875–76,	200	26	226
1862–63,	89	33	122				

* Of the 816 who entered as non-matriculated Students, 183 afterwards passed a matriculation examination. The College Register contains 2,224 matriculated and 648 non-matriculated, in all 2,872 students.

† Adding the return for the present incomplete Session, 1876–77, 3,016 Students have been enrolled since the opening of the College, and 425 are now in attendance, against 386 during the corresponding term of last Session.

IV.—Return showing the Number of Students attending the Lectures of each Professor in each year since the opening of the College.

Professor of	1849-50.	1850-51.	1851-52.	1852-53.	1853-54.	1854-55.	1855-56.	1856-57.	1857-58	1858-59.	1859-60.	1860-61.	1861-62.
Greek,	71	74	46	23	32	38	43	36	44	58	77	100	140
Latin,	63	72	44	25	32	35	40	29	44	54	72	94	139
Mathematics,	86	70	51	36	42	44	45	52	55	62	78	95	106
English,	52	46	53	35	44	44	51	43	56	65	73	100	116
Modern Languages,	62	56	41	31	34	52	43	52	56	63	78	150	177
Celtic,	The Lectures open to the public.												
Natural Philosophy,	48	43	61	29	40	35	35	37	43	34	46	95	95
Natural History,	12	49	75	52	58	68	58	69	62	87	84	77	77
Mineralogy,	*–	6	14	13	15	13	9	20	13	11	16		
Logic & Metaphysics,	3	–	45	39	44	45	43	51	46	54	44	79	106
Chemistry,	40	56	75	53	62	70	60	76	68	88	99	82	106
Engineering,	10	13	15	9	12	12	8	17	16	11	16	14	16
Agriculture & Medical Jurisprudence,	13	21	24	14	22	17	16	20	25	22	27	21	24
Anatomy,	35	44	55	61	53	63	65	46	52	68	81	101	107
Medicine,	9	17	17	12	15	18	33	27	19	22	29	25	42
Surgery,	24	15	26	29	28	30	48	32	30	29	39	51	53
Midwifery,	14	10	12	16	17	18	24	13	7	17	14	26	36
Materia Medica,	11	14	16	17	17	23	25	11	18	22	27	33	38
English Law,	17	16	17	15	11	15	10	14	12	13	11	16	14
Jurisprudence,	11	11	23	16	19	11	15	12	27	20	23	19	20

Professor of	1863-64.	1864-65.	1865-66.	1866-67.	1867-68.	1868-69.	1869-70.	1870-71.	1871-72.	1872-73.	1873-74.	1874-75.	1875-76.
Greek,	157	120	133	118	74	72	73	68	62	61	72	73	73
Latin,	149	113	118	112	96	86	89	87	77	66	72	83	91
Mathematics,	122	111	113	98	80	64	97	84	68	66	67	72	64
English,	135	125	128	113	102	91	91	86	74	72	69	70	78
Modern Languages,	150	125	146	151	150	142	128	137	129	128	130	142	155
Celtic,	Vacant.												
Natural Philosophy,	104	106	102	116	113	108	149	–	102	104	89	113	136
Natural History, Mineralogy,	83	112	121	101	97	118	105	86	120	110	103	105	115
Logic & Metaphysics,	114	103	91	116	101	81	81	59	65	40	52	65	61
Chemistry,	101	104	122	104	127	122	122	106	119	122	118	130	129
Engineering,	25	30	31	29	27	24	28	25	18	23	23	24	18
Agriculture & Medical Jurisprudence,	22	–	–	–	–	–	–	–	–	–	–	–	–
		25	30	30	35	33	35	34	41	37	38	33	47
Anatomy,	105	114	132	138	155	158	167	151	194	169	174	175	198
Medicine,	27	36	44	48	67	69	57	61	68	57	50	59	53
Surgery,	54	47	50	55	77	79	75	63	73	78	81	82	68
Midwifery,	22	34	19	23	36	37	48	38	45	43	39	28	37
Materia Medica,	37	29	38	47	47	38	46	31	46	46	52	47	51
English Law,	12	12	14	19	13	20	17	23	30	21	28	27	22
Jurisprudence,	29	27	31	34	26	24	29	33	37	36	29	38	33

This return is given more fully in detail in the Appendix, pp. 12 and 13.
The return of Lectures delivered in each Session appears in pp. 18 and 19 of the Appendix.

Whilst I have the satisfaction of recording the great benefits conferred by Her Majesty's Government through the restoration of the additional grant to its original amount of £1,600 a year, for the maintenance and support of the various departments of the College, I take this opportunity of expressing my opinion that in a short time additional accommodation will be required both in the Library and in the Museum of Natural History.

I cannot withhold the grateful acknowledgments of myself and the Council of the College to His Grace the Lord Lieutenant and the Executive Government of Ireland for the wise adoption of measures to secure for the Medical Students of the College facilities for additional clinical instruction in the Hospital and Infirmaries of the Belfast Union Workhouse.

As from the opening of the College our Students of all the departments have asserted for themselves a high position in the records of the Civil Service Commissioners, in obtaining by competition many most important appointments both at home and abroad, besides obtaining numerous posts of honour and distinction in professional life, so during the recent period embraced in this Report it has come to my knowledge that the following gentlemen, once our *alumni* in Belfast College, have been successful in obtaining the appointments indicated:—

Robert Donnell, M.A., . .	Appointed Professor of Jurisprudence and Political Economy, Queen's College, Galway.
John M'Kane, M.A., . .	Appointed Professor of English Law, Queen's College, Belfast.
James J. Shaw, M.A., . .	Appointed Whately Professor of Political Economy, Dublin University, by competition (in succession to Professor Donnell).
John James Charles, M.A., M.D.,	Formerly Demonstrator of Anatomy, Queen's College, Belfast, appointed Professor of Anatomy and Physiology, Queen's College, Cork.
Samuel Dill, B.A., . .	Fellow of Corpus, appointed Head Master, Grammar School, Manchester.
Charles J. Weir, . .	Third place Indian Civil Service, by competition.
Alexander C. Tate, . .	Indian Civil Service by competition.
Edwin E. C. Munro, M.A., .	Studentship, Inns of Court, London.
James Moorhead, M.A., M.D. .	Indian Medical Service, First place.
Henry Hunter, M.D., . .	Medical Officer, Demerara.
T. W. C. Charles, M.D., M.CH., .	Lecturer on Physiology, St. Thomas's Hospital, London.
E. P. Dewar, ...	Inspectorship of National Schools (on unprecedently high answering).
William B. Brown, . . .	Inspector of National Schools.

This College, viewed as a member of the Queen's University in Ireland, continues to hold its distinguished place, whether in regard to the number of Students it sends forward to graduate in the Queen's University, or in reference to the position they yearly attain in the intellectual struggles for honors and exhibitions with the co-ordinate Students of Cork and Galway.

In common with all who desire the extension of education in this country, I have heard with much gratification of the intention of your Majesty's Government to deal, as soon as in their power, with the question of intermediate education in Ireland. The arguments in favour of supplying this want by establishing intermediate schools in suitable localities, so as to develop the intellectual and industrial resources of the country have frequently been pressed upon the Government by numerous influential bodies. I would only take leave to repeat the expression of my conviction that the want of preparatory schools established throughout Ireland, on some just principle, is pre-

judicial, not only to collegiate and university education, but to the public service itself, which has placed competition on so wide a basis, and offers high rewards to successful candidates.

I respectfully beg leave once more to call your Majesty's attention to the increasing necessity and importance of extending to the graduates of the Queen's University in Ireland, the privilege of being endowed with the elective franchise to secure for them as soon as possible the advantage of representation in Parliament. The justice and expediency of this has been officially presented to your Majesty's advisers; and the question has, in various ways, and from the most influential quarters been pressed on their attention, and seeing that the strength of the claim is fully admitted, it is to be hoped that a member will speedily be assigned to our University. To leave it in a state of isolation as the only unrepresented University in the empire, when already it commands a constituency unsurpassed by any other for general intelligence—a constituency which will steadily increase every year, would injure the great interests of education, and deprive the graduates of constitutional privileges to which they are justly entitled.

The Deans of Residences of the different Christian Denominations continue to present periodically to the Visitors their Returns of the Students under their spiritual supervision.

Various Returns of the number of Students in each class, of the amount of Fees paid to each Professor, and of the number of Lectures delivered from each Chair, together with the accounts of Expenditure, the enlarged digest of subjects, and the papers used at the various Examinations, will be found given in full length in the Appendix.

All of which, on behalf of this College, is testified by your Majesty's most dutiful servant,

P. SHULDHAM HENRY,
President.

Queen's College, Belfast,
July 15, 1877.

APPENDIX.

APPENDIX, No. 1.

Appendix, No. 1.

Queen's College, Belfast, and Queen's University.

Queen's College, Belfast, and Queen's University.

The College is a Corporation under the name and style of "Queen's College Belfast." It was founded under the provisions of the Act 8 & 9 Victoria, cap. 66, intituled "An Act to enable Her Majesty to endow new Colleges for the Advancement of Learning in Ireland." Under the powers given by this Act, it was determined to found three Colleges. Belfast, Cork, and Galway, were selected as the sites of these Colleges, and on the 30th day of December, 1845, letters patent were issued, incorporating them. The Presidents and Vice-Presidents of the three Colleges were formed into a Board, called "The Board of Queen's Colleges," for the purpose of drawing up the statutes and arranging the system of education to be pursued in them.

On the 4th of August, 1849, the Professors were appointed, and the Colleges opened for the reception of students on the 30th October, in the same year.

Letters patent, constituting the statutes, were issued on the 11th of December, 1849, and a further charter was issued in the year 1863.

The Council of the College—Session, 1875–76.

The President.
The Vice-President.
C. D. Yonge, M.A., Professor of History and English Literature.
J. Cuming, M.D., Professor of Medicine.
Joseph D. Everett, M.A., D.C.L., Professor of Natural Philosophy.
C. MacDouall, LL.D., Professor of Greek.
J. Purser, M.A., Professor of Mathematics.
John Park, M.A., Professor of Logic and Metaphysics.

Professors.

The Greek Language,	Charles MacDouall, LL.D., M.R.A.S.
The Latin Language,	William Nesbitt, M.A.
History and English Literature,	Charles Duke Yonge, M.A. Oxon.
Modern Languages,	A. L. Meissner, PH.D.
Mathematics,	John Purser, M.A., M.R.I.A.
Natural Philosophy,	Joseph David Everett, M.A., D.C.L.
Chemistry,	Thomas Andrews, M.D., F.R.S., M.R.I.A., Hon. F.R.S.E.
Natural History,	Robert O. Cunningham, M.D., F.L.S.
Logic and Metaphysics,	John Park, M.A.
Civil Engineering,	George Fuller, C.E.
Agriculture,	John F. Hodges, M.D., F.C.S.
Anatomy and Physiology,	Peter Redfern, M.D. Lond., F.R.C.S.
Practice of Medicine,	James Cuming, M.D.
Practice of Surgery,	Alexander Gordon, M.D.
Materia Medica,	James Seaton Reid, M.D.
Midwifery,	R. F. Dill, M.D.
English Law,	John M'Kane, M.A.
Jurisprudence and Political Economy,	T. E. Cliffe Leslie, LL.B.

Appendix, No. 1.

Queen's College, Belfast, and Queen's University.

OFFICE BEARERS.

Curator of Museum,	The Professor of Min., Geo., and Nat. Hist.
Registrar,	Rev. Richard Oulton, B.D.
Librarian,	Rev. George Hill.
Bursar,	John Wylie, Esq.

DEANS OF RESIDENCES.

		Appointed.
General Assembly of the Presbyterian Church in Ireland,	Rev. Josias Leslie Porter, D.D., LL.D.,	1866
Church of Ireland,	Rev. Samuel E. Busby, LL.D.,	1872
Wesleyan Methodists,	Rev. Robinson Scott, D.D.,	1873
Irish Association of Non-Subscribing Presbyterians,	Rev. John Scott Porter,	1874

The Deans are designated as they wish themselves to be called.

The students of the College are either Matriculated or Non-matriculated. All the courses for Matriculated students in Arts, including the Department of Civil Engineering, and also in the Faculties of Medicine and of Law, will be found in the Calendar, which is published annually.

Non-matriculated students, on paying the regulated class fees, and signing an engagement to observe order and discipline in the College, are permitted, without undergoing a preliminary examination, to attend any separate course or courses of Lectures; but are not permitted to become candidates for Scholarships or Prizes, or to enjoy other privileges of the Matriculated students.

Students in any of the Faculties can be admitted *ad eundem* from the other Queen's Colleges, or from any University capable of granting degrees.

COLLEGIATE SCHOLARSHIPS.

In the FACULTY OF ARTS—30 Junior Scholarships, of £24 each, are awarded to Undergraduates—15 for proficiency in Literature, and 15 for proficiency in Science; also, 8 Senior Scholarships, of £40 each, to Graduates, one being limited to students who have also completed the course for the degree of LL.B.; and 5 Scholarships, of £20 each, to Engineering Students.

In the FACULTY OF MEDICINE—8 Junior Scholarships, of £25 each, are awarded.

In the FACULTY OF LAW—3 Junior Scholarships, of £20 each, are awarded.

SCHOLARSHIPS AWARDED IN THE SEVERAL FACULTIES, 1875–76.

8 Senior Scholarships awarded.
20 Junior Scholarships in Arts awarded.
5 Engineering Scholarships.
8 Medical Scholarships.
4 Law Scholarships.

1874-75.

7 Senior Scholarships awarded.
22 Junior Scholarships in Arts awarded.
3 Engineering Scholarships.
8 Medical Scholarships.
4 Law Scholarships.

By an order of Her Majesty in Council, of 21st May, 1855, applying to the Civil Service, it is ordained that "every person nominated to a junior situation should obtain a certificate of qualification before entering on his duties." The ordinary classes in Queen's College embrace the branches required in the Examinations for the Civil Service, and also in the Examination for students intending to become candidates for commissions in the Royal Artillery and Engineers, and for appointments to the Civil Service of India, both of which are now thrown open to public competition.

Queen's University in Ireland.

Appendix, No. 1.

Queen's College, Belfast, and Queen's University.

The charter founding the Queen's University in Ireland received the Royal sanction in the year 1850, and it provides that its Senate should have the power of conferring upon the students of the Queen's Colleges of Belfast, Cork, and Galway, such degrees and distinctions, in the Faculties of Arts, Law, and Physic, as are granted and conferred in other Colleges and Universities of Great Britain and Ireland. It further ordains that any of the students of the three Queen's Colleges, who shall have obtained such degrees in any of the several Faculties of Arts, Medicine, and Law, as shall be conferred by the Chancellor and Senate of the Queen's University, shall be fully possessed of all such rights, privileges, and immunities, as belong to similar degrees granted by other Universities or Colleges, and shall be entitled to whatever rank and precedence is derived from similar degrees granted by other Universities.

By the charter of the Queen's University, candidates for Degrees in Medicine are required to have attended *at least two courses of Medical Lectures* in some one of the Queen's Colleges. For the remainder of the courses of Medical Lectures, authenticated certificates will be received from the Professors or Lecturers in Universities, Colleges, or Schools, recognised by the Senate of the Queen's University in Ireland.

The Chancellor and Senate also have the power of admitting, by special grace, Graduates of other Universities to similar and equal degrees.

In order to obtain a degree or diploma in the Queen's University it is necessary to enter the College as a Matriculated Student, to pass the entrance or Matriculation Examination, and to pursue a fixed course of study.

The Matriculated Students may be classified as follow:—

I.	Those intending to proceed to the		Degrees of A.B. and A.M.
II.	,,	,,	Degree of M.D.
III.	,,	,,	Diploma of Elementary Law.
IV.	,,	,,	Degrees of LL.B. and LL.D.
V.	,,	,,	Diploma of Civil Engineering.
VI.	,,	,,	Diploma of Surgery.

The Senate.

Chancellor.—His Grace the Duke of Leinster, M.A. (Oxon.)
Vice-Chancellor.—Sir Dominic J. Corrigan, Bart., M.D., Physician in Ordinary to the Queen in Ireland.
The Rev. P. Shuldham Henry, D.D., M.R.I.A., President Queen's College, Belfast.
Sir Richard Griffith, Bart., LL.D., M.R.I.A.
Major-General the Right Hon. Sir Thomas Aiskew Larcom, bart., R.E., K.C.B., LL.D., F.R.S., M.R.I.A., &c.
James Gibson, M.A., Q.C., M.R.I.A., Barrister-at-Law.
The Right Hon. James Henry Monahan.
The Right Honorable Sir Robert Peel, Bart., M.P.
The Right Reverend the Lord Bishop of Killaloe, D.D.
His Grace the Archbishop of Dublin, D.D.
The Lord Talbot de Malahide, F.R.S., M.R.I.A.
The Lord Clermont, D.L.
Right Honorable Lord Emly.
Right Honorable Lord O'Hagan.
Thomas William Moffett, LL.D., President Queen's College, Galway; Professor of History, &c., and Logic, Queen's College, Galway.
David Ross, M.A., LL.B.
William K. Sullivan, PH.D., M.R.I.A., President, Queen's College, Cork.
William MacCormac, M.A., F.R.C.S., M.R.I.A.
Peter Redfern, M.D., F.R.C.S., Professor of Anatomy and Physiology, Queen's College, Belfast.
Maxwell Simpson, M.D., F.R.S., Professor of Chemistry, Queen's College, Cork.
Sir Robert Kane, LL.D., F.R.S.
Rev. R. Scott, D.D., F.R.S., F.R.A.S., Belfast.
Andrew M. Porter, B.A., Q.C.
John Thomas Banks, M.D., H.F.K.Q.C.P.I.

Secretary.—G. Johnstone Stoney, M.A., F.R.S., F.R.A.S.—Office, Dublin Castle.
Assistant Secretary.—R. Owen O'Conor, B.A.

The Senate holds its sitting in Dublin Castle, where the examinations of the students of the three Colleges, for Graduation and University Exhibitions, are annually conducted by Examiners appointed by the Senate from year to year.

APPENDIX, No. 2.

RETURN of the NUMBER of STUDENTS attending each CLASS in the Queen's College, Belfast, in each Year.

CLASS.	SESSION.												
	1849, 1850.	1850, 1851.	1851, 1852.	1852, 1853.	1853, 1854.	1854, 1855.	1855, 1856.	1856, 1857.	1857, 1858.	1858, 1859.	1859, 1860.	1860, 1861	1861, 1862.
Greek—1st year,	71	47	28	16	21	26	29	24	31	36	45	69	81
,, 2nd ,,	–	27	18	7	11	12	14	12	13	17	23	25	49
,, Higher,	–	–	–	–	–	–	–	–	–	5	4	4	7
Latin—1st year,	63	45	27	19	21	24	27	19	33	34	46	69	84
,, 2nd ,,	–	27	17	6	11	11	13	10	11	18	22	23	49
,, Higher,	–	–	–	–	–	–	–	–	–	2	3	2	6
The English Language,	52	46	28	20	24	28	31	24	36	41	49	72	85
History and English Literature, Senior ,, ,,	–	–	25	15	20	16	20	19	20	24	24	28	5 30
Modern Languages (French, German, Italian),	62	36	41	27	34	37	29	40	40	50	76	140	124
Senior ,,	–	20	28	16	15	15	19	12	16	13	17	10	54
The Celtic Languages,	*The Lectures in each Session open to the Public.*								–	–	–	–	–
Mathematics—1st year,	86	58	40	25	29	33	30	35	39	45	61	83	93
,, 2nd ,,	–	12	11	11	13	11	15	17	16	14	13	13	13
,, Higher,	–	–	–	–	–	–	–	–	–	4	6	3	–
Nat. Philosophy—Higher Class,	–	–	–	–	–	6	6	8	7	4	9	–	–
,, Mathematical Physics, &c.	32	32	46	24	29	23	24	19	26	25	24	64	67
,, Experimental Physics,	48	59	57	29	40	34	36	37	41	28	42	87	86
,, Practical Mechanics,	7	3	6	3	4	3	3	2	–	–	–	–	–
Natural Philosophy applied,	–	–	–	–	–	–	–	–	7	3	4	4	–
Chemistry,	37	53	63	44	51	60	50	70	60	74	81	64*	89
Practical Chemistry,	6	7	14	10	15	14	12	10	11	14	21	21	20
Laboratory,	–	6	8	8	9	9	10	15	10	11	10	12	15
Zoology,	12	34	35	29	31	43	31	43	34	63	56	37*	57
Botany,	12	49	46	35	37	46	36	44	34	62	55	40*	56
Physical Geography,	–	–	29	17	21	19	20	21	28	23	28	30	7†
Logic,	3	–	27	17	21	26	20	27	22	29	29	35	65
Metaphysics,	–	–	18	15	16	11	17	20	15	19	15	24	22
Higher Logic and Metaphysics,	–	–	6	7	7	8	6	7	9	8	–	–	10
Mineralogy and Geology,	*Public.*	6	14	13	15	13	9	20	13	11	16	7‡	11
Surveying,	10	9	9	6	6	9	4	–	–	7	12	–	–
Civil Engineering,	–	4	6	3	4	3	4	17	14	3	4	13	16
Theory of Agriculture,	11	8	7	2	6	5	5	4	7	7	7	6	6
Practice of Agriculture,	–	5	3	2	5	5	1	1	3	1	4	3	1
Diseases of Farm Animals,	–	5	3	2	5	5	1	1	4	2	3	2	1
Medical Jurisprudence,	2	8	14	10	13	8	10	15	16	13	17	14	18
Anatomy,	25	36	48	45	44	51	44	39	39	59	60	86	83
Practical Anatomy,	27	32	35	49	41	46	53	33	41	44	62	80	85
Practice of Medicine,	9	17	17	12	15	18	33	27	19	22	29	25	42
Practice of Surgery,	24	15	26	29	28	30	48	32	30	29	39	51	53
Materia Medica,	11	14	16	17	17	23	25	11	18	22	27	33	38
Midwifery,	14	10	12	16	17	18	24	13	7	17	14	26	36
Law of Property, Equity of Bankruptcy, Common and Criminal Law, Evidence and Pleading,	17	16	17	15	11	5	10	14	12	13	16	16	14
Jurisprudence and Political Economy, Arts,	–	–	12	2	9	6	8	2	18	9	7	10	8
Civil Law, Constitutional, Colonial, and International Law, Jurisprudence,	11	11	13	8	10	5	9	10	10	11	17	10	12
Arabic,	–	–	–	–	–	–	–	–	–	–	1	–	–
Hindustani,	–	–	–	–	–	–	–	–	–	–	2	3	2
Sanskrit,	–	–	–	–	–	–	–	–	–	–	6	3	4

* No Arts Students this Session, owing to change o Statutes.
† Not now required in third year Arts.
‡ No Engineering Students this Session, owing to change of Statutes.

APPENDIX, No. 2—*continued.*

RETURN of the NUMBER of STUDENTS attending each CLASS in the Queen's College, Belfast, in each Year—*continued.*

CLASS.	SESSION.												
	1862, 1863.	1863, 1864.	1864, 1865.	1865, 1866.	1866, 1867.	1867, 1868.	1868, 1869.	1869, 1870.	1870, 1871.	1871, 1872.	1872, 1873.	1873, 1874.	1874, 1875.	1875. 1876.
Greek—1st year,	83	66	79	63	49	47	43	41	37	37	36	46	45	41
,, 2nd ,,	63	44	40	49	21	19	24	11	22	19	18	18	22	27
,, Higher,	7	9	12	6	4	5	6	7	6	6	7	8	6	5
Latin—1st year,	83	65	78	64	50	48	43	44	39	37	38	42	43	37
,, 2nd ,,	60	40	33	44	40	34	37	32	32	21	26	31	40	38
,, Higher,	6	8	7	4	6	7	9	11	6	7	8	10	8	8
The English Language,	85	70	80	67	49	46	43	45	37	36	37	46	44	36
History,	8	6	4	4	5	9	6	16	12	19	18	14	9	18
English Literature,	41	52	48	42	52	41	32	35	39	27	25	22	25	31
Modern Languages (French, German, Italian),	110	99	110	115	109	115	96	94	92	98	95	103	108	99
Senior ,,	43	26	36	36	46	33	32	52	37	30	36	38	47	36
The Celtic Languages,	*The Lectures in each Session open to the Public.*									–	–	–	–	–
Mathematics—1st year,	102	85	92	75	62	58	66	57	44	50	46	57	47	50
,, 2nd ,,	15	20	17	19	12	22	24	22	17	10	9	13	12	9
,, Higher,	5	6	4	4	6	33	7	8	8	6	4	2	5	5
Nat. Philosophy—Higher Class,	–	–	5	4	–	9	5	7	3	4	4	3	4	5
,, Mathematical Physics, &c.	72	69	60	68	56	51	46	52	46	32	31	39	46	34
,, Experimental Physics,	94	95	87	120	104	90	85	78	86	90	78	102	124	108
Natural Philosophy applied,	2	5	6	7	4	6	10	5	3	8	3	3	7	2
Chemistry,	89	81	93	95	91	84	96	84	106	103	95	109	111	126
Practical Chemistry,	24	28	44	37	44	51	44	30	44	43	42	58	46	77
Laboratory,	15	8	14	16	16	16	17	15	16	17	16	19	18	19
Zoology,	66	90	82	84	92	83	75	51	75	75	73	78	87	83
Botany,	62	90	92	27	50	51	60	36	60	61	60	60	80	80
Physical Geography,	7	–	–	–	–	–	–	–	–	–	–	–	–	–
Logic,	66	57	49	68	52	43	46	38	40	29	32	31	43	34
Metaphysics,	34	40	40	41	39	29	33	30	20	14	18	22	17	20
Higher Logic,	12	25	14	24	33	22	21	15	15	9	7	12	3	8
Mineralogy and Geology,	10	12	14	15	5	11	6	10	5	8	10	13	8	6
Engineering, 1st year,	11	15	15	14	12	8	13	11	5	12	13	14	5	9
Engineering, 2nd year, lectures,	11	8	12	10	8	10	4	9	8	3	4	7	5	3
Engineering, 2nd year, practice,			12	9	8	10	4	9	8	3	4	7	5	3
Engineering, 3rd year, lectures,	3	7	7	7	7	6	9	5	3	8	6	3	8	2
Engineering, 3rd year, practice,			7	7	5	6	10	5	3	8	6	3	8	2
Theory of Agriculture,	6	–	–	–	–	–	–	–	–	–	–	–	–	–
Practice of Agriculture,	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Diseases of Farm Animals,	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Medical Jurisprudence,	16	25	30	28	35	33	35	34	41	37	38	33	47	37
Anatomy,	83	87	99	109	127	120	130	117	142	136	134	131	144	155
Practical Anatomy,	91	96	126	124	149	159	160	140	182	157	168	167	193	199
Practice of Medicine,	27	36	44	48	67	70	57	59	68	57	50	59	53	50
Practice of Surgery,	53	46	48	55	77	81	75	61	72	55	81	64	53	62
Materia Medica,	37	29	38	47	47	38	46	38	49	43	52	47	51	59
Midwifery,	22	34	19	23	36	37	48	41	45	46	39	28	37	46
Law of Property, Equity and Bankruptcy, Common and Criminal Law, Evidence and Pleading,	12	12	14	19	13	20	17	24	27	21	28	27	22	30
Political Economy, Arts,	18	17	20	15	16	8	10	14	12	9	6	12	13	17
Civil Law; Constitutional, Colonial, and International Law; Jurisprudence,	11	10	11	19	11	16	19	20	25	17	23	25	20	30
Arabic,	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Hindustani,	3	–	–	–	–	–	–	–	–	–	–	–	–	–
Sanskrit,	5	4	4	–	–	–	–	–	–	–	–	–	–	–
Operative Surgery,	11	2	–	16	23	12	10	17	13	23	23	36	29	36

Appendix, No. 3.

Return of amount of Fees.

APPENDIX,

RETURN of the AMOUNT of FEES received by each

Professor of	1849–50.	1850–51.	1851–52.	1852–53.	1853–54.	1854–55.
	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.
Greek,	*88 10	83 0	50 0	27 5	38 5	46 5
Latin,	*73 15	79 0	50 10	31 5	38 5	44 5
English History and Literature.	50 5	50 5	47 10	31 5	43 5	45 5
Logic and Metaphysics,	6 0	–	§59 5	34 5	37 15	41 0
Mathematics,	116 15	97 10	69 15	43 0	54 10	59 0
Natural Philosophy,	79 5	70 15	99 10	47 0	73 15	76 15
Chemistry, Practical Chemistry,	85 5	104 0	117 5	91 10	111 10	131 15
Anatomy and Physiology. Practical Anatomy,	143 0	170 0	195 15	230 10	228 0	250 0
Natural History & Botany,	20 10	69 0	70 15	50 15	55 0	76 15
Modern Languages,	97 0	84 0	63 0	50 0	61 0	85 0
Mineralogy and Geology,	–	7 10	24 15	17 15	20 15	18 0
Jurisprudence and Political Economy.	20 0	21 0	35 15	18 15	28 0	14 10
English Law,	32 0	29 0	37 0	23 0	20 0	16 0
Civil Engineering,	16 0	24 10	22 0	14 0	17 15	21 0
Agriculture and Medical Jurisprudence.	15 10	41 0	49 5	22 0	46 0	32 15
Practice of Medicine,	17 0	31 0	32 0	18 0	30 0	30 0
Surgery,	41 0	21 10	36 0	51 0	43 0	43 0
Materia Medica,	22 0	28 0	26 0	29 0	33 0	43 0
Midwifery,	28 0	18 0	22 0	27 0	31 0	33 0
Teacher of Drawing,	–	–	–	–	–	–

Professor of	1862–63.	1863–64.	1864–65.	1865–66.	1866–67.	1867–68.	1868–69.
	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.
Greek,	†187 15	†221 0	233 10	212 0	131 0	121 0	127 0
Latin,	185 15	211 0	220 10	202 0	167 0	152 0	155 0
English History and Literature.	164 5	163 10	162 10	131 10	143 10	130 10	107 10
Logic and Metaphysics,	134 10	173 10	143 0	183 10	184 10	140 10	139 10
Mathematics,	211 5	201 0	208 0	173 0	143 0	135 0	132 0
Natural Philosophy,	194 10	183 0	186 0	208 0	198 0	192 0	183 0
Chemistry, Practical Chemistry,	210 5	213 10	294 10	252 0	277 10	299 0	284 10
Anatomy and Physiology, Practical Anatomy,	‖425 10	‖453 10	567 10	544 0	643 14	652 8	731 18
Natural History & Botany,	120 5	157 0	170 0	144 0	154 0	165 0	133 0
Modern Languages,	270 15	231 0	278 0	247 0	268 0	280 0	245 0
Mineralogy and Geology,	20 10	22 0	25 0	24 0	9 0	20 0	7 0
Jurisprudence and Political Economy.	37 10	38 0	51 0	51 0	46 0	37 0	40 0
English Law,	21 0	18 0	20 0	25 0	23 0	35 0	31 0
Civil Engineering,	70 0	82 0	97 0	79 0	68 0	70 0	78 0
Agriculture and Medical Jurisprudence.	**36 15	48 0	55 0	48 0	67 0	63 0	68 0
Practice of Medicine,	46 0	59 0	74 0	77 0	103 0	103 0	92 0
Surgery,	96 11	73 0	82 0	94 0	137 0	144 0	131 0
Materia Medica,	70 0	59 0	73 0	83 0	86 0	71 0	89 0
Midwifery,	36 0	66 0	36 0	42 0	64 0	72 0	93 0
Teacher of Drawing,	–	–	–	–	–	–	–

* In the Session of 1849–50, Medical Students were required to attend the Greek and Latin Classes, but have since been exempt from attending either class.

† Besides for Sanskrit and Hindustani, 1859–60, £35; 1860–61, £22 10*s.*; 1861–62, £25; 1862–63, £32 10*s.*; 1863–64, £20; 1864–5, £20.

‡ Besides for Arabic in 1859–60, £5.

Queen's College, Belfast, October, 1876.

No. 3.

Professor in the Queen's College, Belfast, in each Year.

1855-56.	1856-57.	1857-58.	1858-59.	1859-60.	1860-61.	1861-62.	Professor of
£ s.	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.	
51 15	44 15	51 0	78 0	†93 5	†131 15	†186 0	Greek.
47 15	39 15	53 0	67 0	‡90 0	127 15	185 0	Latin.
59 5	43 15	57 10	69 0	94 15	117 5	155 10	English History and Literature.
41 15	48 5	46 15	68 10	39 0	58 10	106 5	Logic and Metaphysics.
60 10	62 15	69 10	97 10	139 10	156 0	183 5	Mathematics.
59 10	62 15	72 0	66 10	61 5	180 10	178 15	Natural Philosophy.
105 10	133 0	113 10	147 5	184 0	167 0	195 15	Chemistry. / Practical Chemistry.
256 0	181 0	206 0	262 10	307 0	427 10	‖432 10	Anatomy and Physiology. / Practical Anatomy.
59 10	56 0	52 10	105 5	94 10	70 0	96 10	Natural History & Botany.
74 0	86 0	96 0	120 0	159 10	277 0	319 5	Modern Languages.
12 10	37 0	20 5	21 15	24 15	11 10	16 5	Mineralogy & Geology.
29 5	22 10	31 15	28 10	36 10	28 10	25 15	Jurisprudence & Political Economy.
21 0	27 0	21 0	25 0	28 0	28 0	25 0	English Law.
13 10	27 0	22 0	22 15	24 15	32 0	40 15	Civil Engineering.
26 0	25 10	40 5	31 5	47 0	43 0	**44 0	Agriculture & Medical Jurisprudence.
56 0	43 10	26 0	37 0	44 0	37 0	64 10	Practice of Medicine.
74 0	42 10	34 0	46 0	65 10	79 13	84 12	Surgery.
45 0	20 0	34 0	39 0	50 0	60 0	69 0	Materia Medica.
44 0	24 0	12 0	28 0	25 0	48 0	63 0	Midwifery.
–	32 0	25 0	26 0	22 0	–	–	Teacher of Drawing.

1869-70.	1870-71.	1871-72.	1872-73.	1873-74.	1874-75.	1875-76.	Professor of
£ s.	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.	
109 0	114 0	103 0	104 0	123 0	122 0	120 0	Greek.
154 0	132 0	109 0	119 0	149 0	158 0	131 0	Latin.
121 0	123 0	102 0	98 0	100 10	101 10	120 0	English History and Literature.
117 0	98 10	70 0	71 10	88 0	74 10	81 0	Logic and Metaphysics.
148 0	117 0	108 0	107 0	123 0	111 0	102 0	Mathematics.
177 0	164 0	187 0	164 0	208 0	266 0	216 0	Natural Philosophy.
249 10	276 0	324 0	300 10	326 10	313 10	434 10	Chemistry. / Practical Chemistry.
592 1	697 17	706 10	749 12	725 5	858 8	879 0	Anatomy and Physiology. / Practical Anatomy.
104 0	142 0	128 0	136 0	135 0	164 0	170 0	Natural History & Botany.
255 0	226 0	244 0	248 0	284 0	300 0	284 0	Modern Languages.
16 0	20 0	12 0	19 0	20 0	12 0	9 0	Mineralogy & Geology.
56 0	65 0	39 0	54 0	73 0	56 0	86 0	Jurisprudence & Political Economy.
43 0	56 0	34 0	58 0	60 0	45 0	54 0	English Law.
66 0	51 0	60 0	48 0	54 0	53 0	30 0	Civil Engineering.
61 0	73 0	77 0	77 0	64 0	90 0	76 0	Agriculture & Medical Jurisprudence.
96 0	103 0	94 0	87 0	99 0	88 0	87 0	Practice of Medicine.
115 0	134 0	113 0	127 0	128 0	118 0	140 0	Surgery.
73 0	77 0	84 0	98 0	81 0	98 0	115 0	Materia Medica.
78 0	79 0	94 0	74 0	54 0	73 0	88 0	Midwifery.
–	–	–	–	–	–	–	Teacher of Drawing.

§ Professor M'Cosh was appointed in Session 1851–52, and taught and received fees from Students properly belonging to the previous Session.

‖ The Professor of Anatomy pays to his Demonstrator a portion of the fees for Practical Anatomy.

** No endowment for Medical Jurisprudence. Professor Hodges delivers the lectures, receiving only class fees.

JOHN WYLIE, *Bursar.*

APPENDIX, No. 4.

Appendix, No. 4.

Expenditure of One Year's Additional Grant.

Account of the Expenditure of One Year's Additional Grant to the Queen's College, Belfast, ending 31st March, 1875.

	£ s. d.	£ s. d.
1. Library of Ancient and Modern Literature and Philology:		
Ancient Classical Languages and Philology,	9 15 11	
English History and Literature,	18 2 6	
Foreign Modern Languages,	8 0 8	
Works of General Interest, &c.,	112 0 3	
		147 19 4
2. Libraries, Museum, &c., Mathematical, Physical, and Chemical Sciences:		
Mathematical Library,	6 18 8	
Physical Library,	12 5 0	
Chemical Library,	16 1 7	
Museum and Cabinet of Physical Science,	38 9 0	
,, Laboratory, Chemical Science,	43 11 1	
		117 5 4
3. Libraries, Museum, and Collection of Objects of the Department of the Natural Sciences:		
Library of Natural History, and Geology and Mineralogy,	21 13 0	
Museum of Natural History, and Geology and Mineralogy,	47 18 9	
		69 11 9
4. Libraries, Museums, and Collections of Objects of the Department of Engineering:		
Library of Engineering,	8 0 10	
Instruments and Collections of Engineering,	19 2 2	
		27 3 0
5. Museum and Library of Medical Science:		
Library of Medical Works,	32 6 0	
Anatomical and Pathological Museums, &c.,	58 19 3	
Surgical Museum,	5 18 0	
Medical Jurisprudence,	13 10 2	
Midwifery,	—	
Prac. of Medicine,	—	
		110 13 5
6. Library of Metaphysical, Legal, and Economical Science:		
Law, Jurisprudence, and Political Economy,	33 7 2	
Metaphysics,	14 15 8	
		48 2 10
7. Printing, Stationery, Advertising, Postages, Office Expenses, &c.,	—	362 4 3
8. Heating and Lighting,	—	132 3 2
9. Grounds,	—	106 13 8
Balance in Bank of Ireland Office, 31st March, 1875,	—	360 0 5
Total,		1,481 17 2
Amount of One Year's additional Grant,		1,000 0 0
College and Matriculation Fees,		128 17 6
Balance in Bank, 31st March, 1874,		352 19 8
Total,		1,481 17 2

The Accounts of the College up to 31st March, 1875, have been examined and found correct by the Commissioners for Auditing the Public Accounts.

October, 1876.

John Wylie, *Bursar.*

General Class Examinations, Queen's College, Belfast.

—	Session 1874–75.			A.M.	P.M.	Session 1875–76.			A.M.	P.M.
The English Language,	Saturday,	January	9	—	12—4	Saturday,	January	8	—	12—4
Logic,	Saturday,	January	30	9—12	—	Saturday,	January	29	9—12	—
Mineralogy and Geology, and Physical Geography,	Friday,	February	19	10—1	—	Friday,	February	18	10—1	—
Zoology,	Saturday,	February	20	10—1	—	Saturday,	February	19	10—1	—
Metaphysics,	Tuesday,	March	23	9—12	and 2—5	Tuesday,	April	11	9—12	and 2—5
English Literature,	Wednesday,	March	24	9—12	,, 2—5	Wednesday,	April	12	9—12	,, 2—5
History,	Thursday,	March	25	9—12	—	Thursday,	April	13	9—12	—
Practical Anatomy,	Saturday,	April	24	9—12	—	Saturday,	April	22	9—12	—
Anatomy and Physiology,	Monday,	April	26	9—12	and 2—5	Monday,	April	24	9—12	and 2—5
Practice of Medicine,	Tuesday,	April	27	9—12	—	Tuesday,	April	25	9—12	—
Materia Medica,	Tuesday,	April	27	9—12	—	Tuesday,	April	25	9—12	—
Practice of Surgery,	Tuesday,	April	27	—	2—5	Tuesday,	April	25	—	2—5
Natural Philosophy,	Tuesday,	June	1	9—12	and 2—5	Tuesday,	May	30	9—12	and 2—5
Greek (First Year), ,, (Second Year),	Wednesday,	June	2	9—12	,, 2—5	Wednesday,	May	31	9—12	,, 2—5
Latin (First Year), ,, (Second Year),	Thursday,	June	3	9—12	,, 2—5	Thursday,	June	1	9—12	,, 2—5
Engineering, 1st, 2nd, and 3rd years,	Thursday,	June	3	9—12	,, 2—5	Thursday,	June	1	9—12	,, 2—5
Office and Fieldwork,	Wednesday,	June	2	—	2—5	Wednesday,	May	31	—	2—5
Mathematics,	Friday,	June	4	9—12	,, 2—5	Friday,	June	2	9—12	and 2—5
Modern Languages,	Saturday,	June	5	9—12	,, 2—5	Saturday,	June	3	9—12	,, 2—5
Chemistry,	Monday,	June	7	9—12	,, 2—5	Monday,	June	5	9—64	,, 2—5

General Examination of Students in Law and in Political Economy, and of Students attending Summer Classes—Botany, Practical Chemistry, Medical Jurisprudence, Midwifery and Physics—at the close of the Lectures respectively.

APPENDIX,

RETURN of the NUMBER of LECTURES delivered by each

—	1849, 1850.	1850, 1851.	1851, 1852.	1852, 1853.	1853, 1854.	1854, 1855.	1855, 1856.	1856, 1857.	1857, 1858.	1858, 1859.	1859, 1860.	1860, 1861.	1861, 1862.	1862, 1863.	1863, 1864.
Professor of—Greek,	135	232	244	246	236	240	234	235	236	350	500*	460*	440*	360*	350
Latin,	162	197	218	221	189	196	232	230	230	275	398	234	234	234	230
History and English Literature,	35	55	98	91	104	100	105	105	99	110	123	92	154	146	140
Modern Languages,	208	330	324	307	306	305	319	340	369	307	340	372	372	360	356
Celtic,	6	6	6	6	6	6	6	6	6	6	6	6	–	–	–
Mathematics,	135	256	333	248	246	330	346	322	330	400	400	370	370	316	325
Natural Philosophy	122	257	233	209	256	250	255	307	300	300	242	242	213	182	180
Chemistry,	134	136	137	129	132	130	138	142	142	140	132	132	132	132	130
Practical Chemistry	36	36	36	36	36	36	36	36	34	36	36	36	36	36	36
Natural History,	120	120	133	137	139	138	142	140	143	140	140	140	140	140	140
Mineralogy and Geology,	Public	86	54	59	54	55	49	59	52	52	52	52	52	52	52
Logic&Metaphysics	–	–	78	142	176	175	164	177	179	167	140	158	194	208	195
Civil Engineering,	134	138	140	136	140	136	147	118	100	194	196	220	198	328	319
Agriculture,	172	206	205	212	209	213	218	186	190	166	166	156	156	50	50
Anatomy and Physiology,	115	116	115	115	114	115	117	113	115	115	115	112	108	108	224
Practice of Medicine,	93	93	92	92	93	94	94	85	75	95	95	95	95	95	95
Practice of Surgery,	93	94	93	91	91	92	94	94	94	94	94	94	94	93	93
Materia Medica,	92	91	91	93	90	90	92	80	84	84	84	84	84	84	84
Midwifery,	92	92	92	91	90	93	93	93	93	95	90	80	80	76	76
English Law,	24	48	72	96	96	96	96	6	96	96	72	72	96	96	96
Jurisprudence&Political Economy,	24	48	96	120	120	120	120	120	120	96	120	120	120	120	120

The above Return gives the number of Meetings of one hour each, in each Class. The system of in some classes these examinations are held daily; in others on fixed days of the week, according to The Professors also conduct the General Scholarship Examinations; and some of them, in

* Including about 110 on

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Professor in the Queen's College, Belfast, in each Year.

1864, 1865.	1865, 1866.	1866, 1867.	1867, 1868.	1868, 1869.	1869, 1870.	1870, 1871.	1871, 1872.	1872, 1873.	1873, 1874.	1874, 1875.	1875, 1876.	Remarks.
350	350	350	340	300	300	300	300	300	300	300	300	Besides correcting exercises.
324	324	324	319	319	319	320	320	320	320	320	320	
167	167	167	148	148	148	150	150	150	150	150	150	
356	356	406	406	406	406	400	400	400	400	400	400	
–	–	–	–	–	–	–	–	–	–	–	–	Open to the Public without charge.
330	317	317	296	296	296	300	300	300	300	300	300	Besides three hours each week on which the Senior Scholar meets the Junior Division.
180	190	190	288	288	288	300	300	300	300	300	300	In addition, arranging apparatus, which occupies as much time as the lectures.
130	130	130	130	130	130	130	130	130	130	130	130	In addition, superintending the working pupils, of whom from
36	55	55	55	55	55	55	55	50	50	50	50	eight to twelve are admitted each year by examination to the laboratory without charge.
140	140	140	140	140	140	140	140	140	140	140	140	Including lectures in Physical Geography, delivered free to all students.
52	52	52	52	52	52	52	52	52	52	52	52	In addition, daily attendance as Curator in the Museum.
195	195	195	195	195	195	195	195	195	195	175	175	In addition, criticising very many essays and exercises.
236	247	247	247	247	247	250	250	250	250	250	250	Including practical work under the direction of the Professor.
50	41	41	35	35	35	35	35	34	34	34	34	Including lectures on Medical Jurisprudence, for which there is no salary.
261	260	260	260	260	260	260	260	260	260	260	260	In addition, daily practical teaching in the dissecting-room for three hours by the Professor, and four hours by his assistant.
95	95	95	95	95	95	95	95	80	80	80	80	
93	93	93	93	93	93	93	93	83	83	83	83	Besides about twenty-five lectures each session on Operative Surgery.
84	84	84	80	80	80	80	80	77	77	77	77	
76	76	76	76	76	76	76	76	44	44	44	44	Besides practical instruction to students, which may be required at any hour throughout the year.
96	96	96	96	96	96	96	96	96	96	96	96	No third year Class in 1859–60,
120	120	120	120	120	120	120	120	120	120	120	120	or fourth year Class in 1860–61.

instruction includes, not merely formal Lectures, but also examination in the business of the course; the nature of the subject.
addition, the Matriculation and Supplemental Examinations.
Sanskrit and Hindustani.

October Examinations of Queen's College, Belfast, 1875.

Days.	Hours.	First Year Students.	Second Year Students.	Third Year Students.	Fourth Year Students.
Tuesday, Oct. 17.	9—12		Suppl. Ex. { English. Mod. Lang. Math.	Suppl. Ex.—Mod. Lang., Math., Nat. Phil., Chem.	Senior Schol.—Latin.
	2—5		Suppl. Ex.—Greek, Latin, Engin.	Suppl. Ex.—Greek, Latin, Logic, Engin.	Senior Schol.—Latin.
Wednesday, Oct. 18.	9—12		Liter. Schol.—Greek.		Senior Schol.—Greek.
	2—5		Liter. Schol.—Greek.		Senior Schol.—Greek.
Thursday, Oct. 19.	9—12		Med. Engin. } Schol.—Chem.		Senior Schol.—Chem.
	2—5	Matric.—Math.	Med. Engin. } Schol.—Chem.		Senior Schol.—Chem.
Friday, Oct. 20.	9—12	Matric.—Greek, Latin.			
	2—5				
Saturday, Oct. 21.	9—12	Matric.—English, *in Arts only.*			Senior Schol.—Mod. Hist.
	2—5	Matric.—English, *in Medicine, &c.*			Senior Schol.—Mod. Hist.

Monday, Oct. 23.	9—12		Med. Schol.—Botany.	Engin. Schol. { Geol. and Phys. Geog.	Senior Schol.—Nat. Hist.
	2—5	Lists of Matriculated Students to be made out.	Med. Schol.—Zoology.		Senior Schol.—Nat. Hist.
Tuesday, Oct. 24.	9—12	Science, Med., Engin. } Schol.—Math.	Science, Engin. } Schol.—Math.	Engin. Schol.—Math.	Senior Schol.—Math.
	2—5	Science, Med., Engin. } Schol.—Math.	Science, Engin. } Schol.—Math. Med. Schol.—Anat. and Phys.	Engin. Schol.—Math. Med. Schol.—Anat. and Phys.	Senior Schol.—Math. Med. Schol.—Prac. of Midw.
Wednesday, Oct. 25.	9—12			Med. Schol.—Prac. Chem.	Senior Schol.—Nat. Phil. Med. Schol.—Prac. of Med.
	2—5	Liter., Med. } Schol.—English.	Liter. Schol.—English. Engin. Schol.—Exp. Phys.	Med. Schol.—Prac. Chem. Engin. Schol.—Nat. Phil.	Senior Schol.—Nat. Phil.
Thursday, Oct. 26.	9—12	Liter., Med. } Schol.—Latin.	Liter. Schol.—Latin. Engin. Schol.—Geo. Draw.	Engin. Schol.—C. Engin. Med. Schol.—Mat. Med.	Med. Schol.—Med. Jur. Senior Schol.—Pol. Econ.
	2—5	Liter., Med. } Schol.—Latin.	Liter. Schol.—Latin. Engin. Schol.—Geo. Draw.	Engin. Schol.—C. Engin.	Senior Schol.—Pol. Econ. Med. Schol.—Surg. Anat.
Friday, Oct. 27.	9—12	Liter., Med. } Schol.—Greek.	Liter. Schol.—Mod. Lang.		Senior Schol.—Mod. Lang. Senior Schol.—Metaph. Med. Schol.—Anatomy.
	2—5	Liter., Med. } Schol.—Greek.	Liter. Schol.—Mod. Lang.		Senior Schol.—Mod. Lang. Senior Schol.—Metaph. Med. Schol.—Physiology.

Students passing the Supplementary Examinations complete the previous year, and take rank accordingly.

Hours of Lectures,—Session 1875–76.

Hours.	Arts. 1st Year.	Arts. 2nd Year.	Arts. 3rd Year.	Civil Engineering. 1st Year.	Civil Engineering. 2nd Year.	Civil Engineering. 3rd Year.	Medicine.
9 to 10	*French.* Monday Wednesday Thursday *German.* Tuesday Friday	*Mathematics.* Monday Tuesday Wednesday Thursday Friday		*French.* Monday Wednesday Thursday *German.* Tuesday Friday	*Mathematics.* Monday Tuesday Wednesday Thursday Friday		
10 to 11	*Mathematics.* Monday Tuesday Wednesday Thursday Friday	*French.* Monday Wednesday Thursday *German.* Tuesday Friday	*Honor Classes.*	*Mathematics.* Monday Tuesday Wednesday Thursday Friday		*Civil and Mech. Eng.* Monday Wednesday Friday	
11 to 12	*Latin.* Monday Wednesday Friday	*Nat. Philos. Exp. Phys.* Monday Wednesday Friday *Mat. Phys.* Tuesday Thursday	*Eng. Lit.* Monday Wednesday Friday *Bot. from May 1.* Monday Tuesday Wednesday Thursday Friday *History.* Tuesday Thursday	*Exp. Phys.* Monday Wednesday Friday *Geom. Drawing.* Tuesday Thursday	*Civil Eng.* Monday Wednesday *Mat. Phys.* Tuesday Thursday	*Office and Field Work.* Tuesday Thursday	*Bot. from May 1.* Monday Tuesday Wednesday Thursday Friday *Exp. Phys. 3 months.* Monday Wednesday Friday *Prac. Chem.* [*see below.* Summer Medical Classes.]
12 to 1	*Greek.* Monday Wednesday Friday	*Latin.* Monday Wednesday Friday	*Metaphysics.* Tuesday Wednesday Thursday Friday *History.* Monday	*Geom. Drawing, and Office Work.* Tuesday Thursday	*Office and Field Work.* Tuesday Thursday	*Office and Field Work.* Tuesday Thursday	*Anatomical Demonstrations.* Monday Tuesday Wednesday Thursday Friday

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APPENDIX, No. 7.

Appendix, No. 7.

Digest of Subjects and Courses.

An Enlarged Digest of Subjects and Courses pursued in Queen's College, Belfast.

Greek—*Professor, Charles MacDouall*, LL.D., M.R.A.S.

In the Greek Class, as in all those which are attended during more than one session, the business, as well as the hours assigned to the Students of the different years, is necessarily different; but it is always distributed into three simultaneous processes, viz., public examinations, lectures more or less formal, and exercises written at home and commented on in the class.

In the first session, the complex and self-contained structure of the Greek language is subjected to a close analysis; carried out, on the one hand, by tracing words to their crude forms, by classifying terminations, both the primary and the flexional, and by discriminating among analogically correct forms those actually used in different ages and dialects; on the other hand, by exhibiting the methods by which words are combined in simple clauses, clauses are knit into sentences, and sentences compose periods less or more complicated. Some prose-work furnishes the materials for this analysis; while the Students read and translate it, or else re-translate off-hand passages read out in English before them by the Professor. Besides syntactical phænomena, the laws and characteristics of both epic and dramatic versification are expounded and exemplified, while a portion of the *Ilias* and some tragedy are used as text-books.

In the second session, while consecutive passages of Herodotus along with some Attic oration or philosophical treatise, and a portion of the *Odysseia* along with some Attic tragedy or comedy, form the basis of prelections, the previous discipline is continued and extended; the distinctions of dialect and style are more fully elucidated; the origin, growth, and fortunes of the epos, the drama, history, and other departments of literature, are more distinctly unfolded; discussions on points of mythology, geography, chronology, archæology, æsthetics, &c., are more freely introduced and more amply treated. The Students are invited to turn Herodotean Greek, at sight, into Attic, altering both the forms of words and the structure of sentences; to re-translate passages into Greek prose and verse; and also to give in original essays in both forms of composition.

In a distinct or higher class, advanced Students, generally in the third or fourth year of their Course, are exercised in the study of more difficult works than those previously read, in the higher problems of criticism and philology, and especially in composing both prose and verse.

The following Text-books have been used in the successive Sessions of College from 1849–50 to 1875–6:—*The Ilias* and *the Odysseia* (both entire); Hesiodus, *Theogonia;* Pindarus, *Olympia*, *Pythia*, *Nemea;* Aeschylus, all the Tragedies except the *Supplices;* Sophocles, the seven Tragedies; Euripides, all the Plays except the *Cyclops;* Aristophanes, *Nubes*, *Aves*, *Ranae;* Herodotus, portions of Books I., II., III., IV., VII., VIII., IX.; Thucydides, Books I., II., III., IV., VI., VII.; Xenophon, portions of *Anabasis*, *Memorabilia Socratis*, and *Cyropaedeia;* Platon, *Apologia Socratis*, *Gorgias*, *Phaedon*, *Phaedrus*, *Philebus*, *Protagoras*, *Theaetetus*, *Timaeus*, *Menon*, and Books I., II., VII., and X. of *Respublica;* Aristoteles, *Poetica* and portions of *Rhetorica;* Demosthenes, *Philippicae, c. Meidiam*, and *de Corona;* Aeschines, *in Ctesiphontem.*

The Sanskrit and Hindustani Classes, conducted during six Sessions by the Professor of Greek, have been discontinued.

LATIN—*Professor, William Nesbitt,* M.A.

The Professor of Latin gives three lectures weekly to Students of the First, and the same number to Students of the Second Year, attendance upon which is compulsory for all that take the Latin Classes. Besides these compulsory lectures, he gives two lectures additional to Students of each of these years, attendance on which is voluntary, in which more difficult authors are read, and special attention is paid to composition. The attendance on these lectures is very good. That on the general classes reaches, in the first two terms, a daily average of perhaps 90 per cent. of those enrolled: the voluntary classes are, usually, attended by about two-fifths of the Students of the First, and one-third of the Students of the Second Year.

An honor Class has been formed of Students of the Third and Fourth Years, chiefly attended by those who are anxious to distinguish themselves in Ancient Classics at the Degree Examination.

The Professor lectures thirteen hours each week throughout the Session, extending, with short intervals at Christmas and Easter, from the beginning of November to the beginning of June.

The proficiency of the Students depends, of course, to a considerable extent, upon their preparation at entrance. It has been the aim of the Professor, without fixing any fancy standard, to make the matriculation examination as strict as is consistent with the state of intermediate education in the province. Several important schools, he is happy to say, have been called into existence by the influence of the Queen's College, and many more have been largely benefited, as well by its reflex action as by the large number of efficient teachers that it has supplied. Still this department of our educational system remains in a very unsatisfactory condition, and its organization—a work far beyond the reach of private enterprise—is confessedly the great desideratum of educational reform. At present, the practical requirement of this College in the Latin language from candidates for matriculation is that they should be able to read aloud a portion of a Latin author, in such a way as to retain the attention of the class; and this requirement is fairly met. Members of the class must, at each lecture, when called upon by the Professor—and all are called upon without any fixed order—translate into English a portion of the book which forms the subject of the term, and render into Latin an easy exercise.

In this way pass Students of the first year are expected, during the session, to get through some such course as this:—A book of Livy, Cicero, *Pro Milone*, and, if possible, selections from Juvenal; while those that attend the voluntary class read, in addition, say, a book of the Georgics of Virgil, together with selections from Terence and Cicero; and no Students are allowed to rise to the Second Year who fail to pass a satisfactory examination in at least the subjects of the pass course.

In the Second Year, pass men read with great care, under the same conditions as are observed in the First Year, some such course as this:*—Two books of Cicero's *Tusculanae Disputationes*, and as many of Horace's Epistles as can be got through, continuing their efforts to attain, if not elegance, at least grammatical correctness in writing easy Latin; while the members of the Voluntary Class are expected, in addition, to read, say, a play of Terence, Book III of the *Tusculanae Disputationes*, and part of the Satires and Ars Poetica of Horace, with selections from the Histories of Tacitus.

At the end of the Second Year pass men have completed their Latin studies, and having passed the first examination in Arts at the University, are set free to pursue for their degree studies for which they have more special aptitude.

The Third Year's Latin Class is therefore strictly an Honor Class, and its members read as many of the authors prescribed for classical honors at the University as can be brought within the limits of the Session. Last year the books read were the Academica of Cicero, with selections from the Annals of Tacitus, and from Plautus.

During the whole Session, passages such as are set at Honor Examinations are rendered into Latin by the members of the Voluntary and Honor Classes, and their versions are carefully corrected by the Professor at home, and made the subject of comment in the class. Latin philology is studied with the aid of the excellent text books of Roby and Peile.

* I take as an example the actual course of the present year.

Appendix, No. 7.

Digest of Subjects and Courses.

The Professor has made this *résumé* by the desire of the President, who thinks it due to the Legislature and the public that, at a time when so much laxity of statement is indulged in, an authentic account of the work of the College should be furnished by those to whose hands its teaching has been committed. If the Professor may be permitted to state his impression as to the results of that teaching, he would say that the attainments of the pass men—as might be expected from their punctual attendance upon lectures, and their very commendable diligence—are higher than those of the corresponding class in the University with which he is most intimately acquainted—the University of Dublin; while the attainments of honor men, who usually start from a much lower level, fall considerably short of those of the best men in that University. They may be represented by high distinction at such examinations as that for the Civil Service of India.

HISTORY AND ENGLISH LITERATURE—*Professor, Charles Duke Yonge,* A.M. OXON.

Class of the English Language.

The business of this Class is conducted by—

A Course of Lectures on the Origin, Formation, Inflections, and Grammar of the English Language, for which Dr. Latham's "English Language" forms in some degree the text-book;

With occasional Lectures on the rules and principles of Prose Composition, and Weekly Essays.

Class of English Literature.

The business of this Class is conducted by—

A Course of Lectures on English Literature in general, and particularly on the lives, works, and styles of the best authors in each department;

With Special Lectures also on the works appointed as the subjects for the Dublin Autumnal Examination of the ensuing year, with and without Honors;

And Fortnightly Essays.

Class of History.

The business of this class is conducted by—

Lectures on History in general;

Lectures on English History, embracing rather the larger half of the entire course;

A subsequent course on the History or that portion of the History of any other country which is selected as a subject for the Dublin Autumnal Examination of the ensuing year.

MODERN LANGUAGES—*Professor, Albert Ludwig Meissner,* PH.D.

The instruction in Modern Continental Languages embraces three courses each for French and German, extending over three terms, and a course of Italian during the first two terms, attendance on which is voluntary.

No entrance examination is as yet held in Modern Languages, in consequence of which the insufficiency of intermediate teaching is more apparent in this department than perhaps in any other. The consequence of this is, that the Professor is over-burdened with a great amount of elementary teaching, without which his classes cannot be kept in good working order. The elementary class consists at present of more than a hundred students, and the number of lectures delivered during the past session was about 400. Something, it is hoped, may be done to relieve the Professor of some part of the elementary teaching, so as to increase his usefulness in the more advanced classes.

Students in Arts and Medicine, and in the department of Engineering, are required to attend lectures on one Modern Language for one session. The majority select for this purpose the French language; several, however, attend both French and German. For Students in Arts of the second and higher years, Modern Languages form one in a group of four subjects, out of which they select two.

The work of the classes, especially during the first two terms, is carried on to a great extent by means of *vivâ voce* questions and answers. Frequent oral examinations are held, and at each meeting of the classes a passage is translated from English into French or German.

In the First Session the Grammar and the principles of composition are explained, and select passages are translated from French and German Classics.

In the Second Session a systematic course of composition is gone through, and the Students are made acquainted with the principal authors of French and German Literature.

In the Third Session a course on the elements of Comparative Grammar is delivered, which is followed by a course on some period of Continental Literary History. The students in this class read, during the last session, the *Vie de St. Alexis*, in the edition of Professor Gaston Paris, and a portion of the *Chanson de Roland*.

MATHEMATICS—*Professor, John Purser*, M.A.

Attendance on this Class is prescribed to all Students in the Faculty of Arts during the first year of their Course; during the second year Mathematics forms one of four Courses, out of which the Students select two.

All Students in the Department of Engineering are required to attend the Mathematical Classes during two years.

Before entering, Students are required to pass an examination in Arithmetic, in the subject-matter of the First and Second Books of Euclid, and in a small portion of Algebra. Practically they come fairly prepared in Arithmetic and Geometry, but a large proportion can hardly be said to possess even an elementary knowledge of Algebra. A considerable number of the Students are Candidates for Mathematical Scholarships at entrance, and these are generally well prepared in a much more extended course of Geometry, and a considerable portion of Algebra and Plane Trigonometry.

On this account the instruction of the First Year in Mathematics has been given in two Divisions. The Lower Division is carefully taken through the Geometry of Euclid's first six Books, and is instructed in Algebra as far as the progressions, and in Plane Trigonometry as far as the solution of triangles, with the use of logarithms and trigonometrical tables. In the Upper Division a more advanced course of lectures is given in Geometry, Plane Trigonometry, and Algebra, to which is added the Conic Sections, treated geometrically, and Spherical Trigonometry.

The Council has sanctioned the employment of the Senior Mathematical Scholar in giving a portion of the instruction of the Lower Division. This arrangement, while it affords a greater number of hours to the Lower Division enables the Professor of Mathematics to give more attention to the Upper Division, and has been found to work very satisfactorily.

In the Second Year the subjects of Lecture are Analytical Geometry, the Differential and Integral Calculus, and the Theory of Equations.

In the Third Year an Honor Course is given, in which are taught the higher branches of the Calculus, Geometry of Three Dimensions, and Differential Equations.

NATURAL PHILOSOPHY—*Professor, Joseph David Everett*, M.A., D.C.L.

The Classes in this Department are arranged under the three heads of Experimental Physics, Mathematical Physics, and Natural Philosophy Applied.

All Students in the Faculty of Arts in their Second Year attend the Classes of Experimental and Mathematical Physics. Engineering Students attend the Class of Experimental Physics in their First Year, the Class of Mathematical Physics in their Second Year, and the Class of Natural Philosophy Applied in their Third year. Medical Students attend the Class of Experimental Physics only.

In all these Classes the teaching is by prelection interspersed with oral examination.

The subjects treated under the head of Experimental Physics include—Properties of Matter, Mechanical Powers, the Elements of Hydrostatics and

Appendix, No. 7.

Digest of Subjects and Courses.

Hydraulics, Heat, Light, Sound, Electricity, and Magnetism; the leading principles in these several departments being broadly laid down and copiously illustrated by experiments.

The Course of Mathematical Physics includes a rigorous demonstration of the principal theorems in Statics and Kinetics, an explanation of the leading principles of Astronomy, Geometrical Optics, and the Mathematical treatment of numerous questions connected with the subjects of the Experimental course.

In the Class of Natural Philosophy Applied, the subjects include a more advanced course of Statics, Kinetics, and Hydrostatics, involving application of the Differential and Integral Calculus, and illustrated by practical examples, Kinematics, including the principles of Mechanism, the relations of Stresses and Strains, Moduli of Elasticity and Rigidity, Work done, Kinetic and Potential Energy, Elements of Thermodynamics.

In addition to the above-named Classes, there is an Honor Class, attended by Senior Students, in which the subjects prescribed for University Honors are studied.

CHEMISTRY—*Professor, Thomas Andrews,* M.D., LL.D., F.R.S., M.R.I.A.

In the Class of Chemistry the greater part of the Course is devoted to pure Chemistry; but the Elements of the Sciences of Heat and Electricity, particularly in their relations with Chemistry Proper, are also taught. The application of these sciences to the arts are particularly referred to; and it has been the constant endeavour of the Professor to communicate to the Students as precise and accurate information as possible on the subjects treated in his Lectures, and to train them to habits of careful observation and accurate thinking. With this view a weekly examination of the whole Class is held, at which the Students are subjected to a searching examination on the business of the preceding week; and further to encourage a taste for scientific inquiry, and also to train a certain number of practical chemists, a limited number of the Students are admitted, by examination, as working pupils into the chemical laboratory, where they have an opportunity of acquiring a knowledge of chemical analysis. This latter arrangement has now been in practice for several years, and has been attended with the best results.

NATURAL HISTORY—*Professor, Robert O. Cunningham,* M.D., F.L.S.

1. The Zoological Department of the Course occupies the First Term and greater part of the Second, and comprehends an Outline of the Anatomy and Physiology, Classification, and Geographical distribution of animals.

2. The Botanical portion includes the Histology, Morphology, Physiology, Classification, and Geographical distribution of Plants. The Lectures are delivered during the months of May, June, and July; and in addition to them, there are weekly excursions and practical demonstrations.

The Lectures on Zoology and Botany are illustrated by numerous specimens and diagrams, and oral examinations are held once a week.

GEOLOGY, MINERALOGY, AND PHYSICAL GEOGRAPHY.—*Professor, Robert O. Cunningham,* M.D., F.L.S.

This Course includes Lectures on the Elements of the above branches of science. In the Mineralogical portion special attention is directed to these minerals which form important constituents of roads, and those which possess the greatest economic value. The classification adopted is a chemical one.

The Geological Lectures are mainly devoted to an examination of the various strata composing the crust of the earth, and the organic remains contained in them.

The Lectures on Physical Geography include a survey of the principal phenomena of the sea, atmosphere, and land of the globe.

All three branches of the course are copiously illustrated by specimens and diagrams, and examinations are held once a fortnight.

Logic and Metaphysics—*Professor, John Park,* M.A.

I. Logic.

This class meets at 2 P.M., on Tuesdays, Wednesdays, Thursdays, and Fridays, during the Second Term of the Session.

The business of the class is conducted by lectures on Logic, or the science of the conditions on which depend valid inferences (formal and material), and the correct expression of evidence—by examinations on the lectures, and on Fowler's "Elements of Deductive Logic," and "Elements of Inductive Logic," and by the criticism of essays and exercises on logical subjects.

Students are expected to read some handbook of Formal Logic, and Bacon's "Novum Organum," Book I., before entering the class.

II. Metaphysics.

This class meets at noon, on Tuesdays, Wednesdays, Thursdays, and Fridays, during the First and Second Terms of the Session.

The business of this class is conducted by lectures on Psychology, or the science which investigates the phenomena of the human mind and their conditions; and Metaphysics Proper, or the science which investigates the Nature of Truth and of Reality; by examinations on the lectures, and on Dr. Stirling's Translation of Schwegler's "Handbook of the History of Philosophy;" and by the criticism of Essays on Metaphysical subjects.

III. Higher Logic.

This class meets three hours each week, during the First and Second Terms of the Session, and is conducted by lectures, and a course of reading and examinations. Especial attention is paid to the subjects contained in the Degree Honor Courses of the ensuing year.

Civil Engineering—*Professor, George Fuller,* C.E.

The Courses of lectures and practical instruction given by the Professor of Civil Engineering are arranged to accord with the Ordinances of the Queen's University, which prescribe to candidates for the Diploma in Civil Engineering a Curriculum extending over three Sessions usually, but admitting of abbreviation to two Sessions in the case of students whose previous acquaintance with a sufficient group of the subjects prescribed for study in the first and second Sessions of the ordinary Course shall be deemed by the College Council satisfactory.

For the First Year Students the Professor gives a course of instruction, comprising lectures and oral examinations on the Principles of Geometrical Drawing, and the performance by the students of practical work under his direction. The lectures include the principles of descriptive geometry, orthographic and isometric projection, and linear perspective; and the practical work comprises the performance of examples in these subjects, and the execution of drawings in Mechanical Engineering, and occasionally also in Architecture and Civil Engineering. The Class meets for two hours at a time on two days per week during the three Terms of the College Session.

For the Second Year Students two courses are conducted by the Professor of Engineering, of which one is a Lecture Course and the other a Practice Course. The Lecture Course comprises surveying, levelling, and plotting, with the theory and use of the instruments required in surveying and levelling operations; mensuration of earthworks for railways; setting out works on the ground, including ranging of railway curves, and setting out breadths of cuttings and embankments, and ranging tunnels, &c. The Course also comprises usually some of the following subjects:—revision and farther prosecution of descriptive geometry, and perspective, and other subjects of geometrical drawing; designing and drawing of oblique bridges; properties and qualities of materials used in construction, and modes of procuring them; and an introduction to architecture as a fine art.

In the Practice Course of the Second Year the Students are engaged in the performance of office and field work, under the instruction and direction of the

Appendix, No. 7.

Digest of Subjects and Courses.

Professor; and the business includes surveying, levelling, drawing, mapping, and the computation of areas of lands, and other engineering calculations. Excursions are also made occasionally during the Session to visit Engineering works.

For the Third Year Students there are (as for those of the Second Year), two Courses conducted by the Professor, one a Lecture Course, and the other a Practice Course. The Lecture Course comprises the farther treatment of some of the subjects proposed to be entered on in the Second Year, and most of the following subjects:—foundations, cofferdams, bridges, tunnels, roads, and railways; specifications for engineering contracts; water-works for supplying towns; science of the flow of water in orifices, pipes, and canals; drainage of fens by gravitation, and by steam power and other mechanical means; regulation and improvement of rivers; science of the strength of materials and structures; ventilation of dwelling-houses, public buildings, and mines; processes and mechanisms used in foundries and engineering workshops.

The Practice Course includes office work, field work, and engineering excursions.

ANATOMY AND PHYSIOLOGY—*Professor, Peter Redfern,* M.D. Lond., F.R.C.S.

The Department of Anatomy and Physiology comprises two distinct Courses of Lectures—one on Anatomy and Physiology, the other on Descriptive and Surgical Anatomy, and also the teaching of Anatomy by Dissections throughout the day.

The Course of Anatomy and Physiology includes about 144 meetings, each of an hour's duration, held on the first five days of each week from November to April inclusive. These meetings are for lecture and occasional examinations on the subjects previously considered in the lectures. The lectures include a complete course of the Anatomy and Physiology of the general textures of the body, including the blood, chyle, &c., and a systematic account of the whole of the viscera, treated of as they are associated in groups for the several purposes of digestion, circulation, respiration, urination, innervation, and generation; also the organs of sense. In treating of every part or organ its healthy state is shown by recent dissections and by preparations from the Museum illustrating it in man and animals, its diseased states and actions being referred to at the same time and contrasted with the healthy ones. The textures not visible to the naked eye are shown under a series of achromatic microscopes, so that during the Course every student in the class has an opportunity of judging for himself of the true characters of each part, and, by becoming familiarized with these, of recognising each when changed by disease.

The Course of Practical Anatomy and Anatomical Demonstrations includes:—

1st. Dissections carried on throughout the day under the immediate superintendence of the Professor of Anatomy and Physiology, and the Demonstrator. Each Student is required to be steadily engaged in dissections during the whole Session. For this purpose the supply of subjects is regular and abundant, and thus affords the surest foundation for efficient medical teaching.

2nd. This Course includes the Anatomical Demonstrations, which consist of a complete Course of Descriptive and Surgical Anatomy, commencing with the anatomy of the skeleton and bones, and including the anatomy of the limbs and other parts, excluding that of the viscera and the physiology treated of in the Course of Anatomy and Physiology. The demonstrations are given on each of the first five days of the week, and are about 117 in number in each Session.

PRACTICE OF MEDICINE—*Professor, James Cuming,* M.D.

The class meets four times each week, from the first week of November to the last of the following April.

An examination is held usually once a fortnight. The Course embraces the principles of Inflammation, Fevers, the diseases, organic and functional, of the viscera of the three great cavities of the human body. In treating of individual diseases, their pathology, semeiology, ætiology, and treatment, are the subjects chiefly dwelt on. Wherever it is possible, pathology is illustrated by the preparations afforded by our Museum, by drawings and plates, or by recent specimens. It may be added that the Professor's present connexion with the Belfast General Hospital adds greatly to the means of making his Course more useful and interesting to students.

THEORY AND PRACTICE OF SURGERY—*Professor, Alexander Gordon,* M.D.

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Digest of Subjects and Courses.

Four Lectures are delivered weekly during the Medical Session. An examination is held each day on the subject of the preceding day's Lecture. Each Course comprises the following subjects:—

Inflammation,
Suppuration,
Mortification,
Erysipelas,
Burns,
Ulcers,
Wounds,
Hæmorrhage,
Diseases of the Arteries,
,, Veins,
Fractures of Trunk and Extremities,
,, Cranium, Injuries of the Brain and Scalp,
Dislocations,
Diseases of the Joints,
Diseases of the Bursae,
,, Bone, benign and malignant,
,, the Jaws and Mouth,
,, the Fingers and Toes,
,, Female Breast,
,, Anus and Rectum,
,, Testis,
,, Hernia,
,, Prostate,
,, Bladder,
,, Eyes,
,, Larynx,
Syphilis,
Gonorrhœa,
Stricture.

All the capital and minor operations are performed on the dead subject. The Professor delivers a separate Course of twenty-five Lectures on Operative Surgery.

MATERIA MEDICA—*Professor, James Seaton Reid,* M.D.

This Course includes—

1st. General Pharmacology, or the modes in which medicines act upon the living organism in a state of health.

2nd. Therapeutics, or the modes in which medicines act as curative agents.

3rd. Pharmacy.

4th. Dietetics, a review of the different kinds of food used in health and in disease.

5th. Special Pharmacology, or the history, composition, uses, and modes of administering medicinal agents for the cure of disease.

The Class meets four times each week. An examination is held once every week.

MIDWIFERY—*Professor, Robert F. Dill,* M.D.

Lectures four times a week during the three months of the summer session consist of following subjects:—

Anatomy of the pelvis, so much as is required for midwifery. Its measurement and pelvimeters.

Contents of the pelvis. The functions of the uterus in its virgin state.

Conception—length of gestation—changes of the uterus and its appendages during gestation.

Growth of child from its earliest seen form until its full parasitic size.

Graafian vesicle and corpus luteum. Fœtus, its circulation, signs of maturity, weight, and length.

Plural births.

Proportion of births and deaths of males to females.

Superfœtation.

Signs of pregnancy.

Signs of approaching labour.

Natural labour, its progress; also the positions and progress of child till its separation from its mother.

Management of natural labour, including the arrangement of the bed and bed-room, and the proper dress and posture of the patient.

Tedious labour, its causes and treatment.

Labour requiring the use of instruments; their application taught on models in the class.

Cæsarean section and Sigaultean operation—how to prevent the fœtus from getting large in uterus.

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Digest of Subjects and Courses.

Premature labour—how to bring it on, and when it is necessary to do so.
Cross-births and their treatment.
Abortion—how to prevent it.
Extra uterine fœtations—how they occur, and their treatment.
Management of women after delivery, and treatment of such accidents and diseases as occur at this period.
Management of children after birth, washing, dressing, food, &c., and the choice of a wet-nurse, and treatment of such accidents as take place at this period, or soon after.
Practical midwifery taught by pupils attending patients in their own houses and in the Lying-in hospital, where Clinical Lectures are given.

MEDICAL JURISPRUDENCE—*Professor, John F. Hodges,* M.D., F.C.S.

The Lectures in this Course are delivered four times weekly during the three months of the summer session. They include an account of the history and chemical investigation of poisons, and of the various subjects respecting which the evidence and assistance of Medical Practitioners may be required in Courts of Law. Experimental illustrations of the methods to be pursued in medico-legal inquiries are given, and frequent examinations held to test the progress of Students. No salary has been allocated to the Teacher of this department, and the duties, at the request of the Council, have, since the opening of the College, been performed by Dr. Hodges.

ENGLISH LAW—*Professor, John M'Kane,* M.A.

The Course of the *First* year in this department comprehends the elements of real and personal property, with the principles of conveyancing; that of the *Second* consists of an introduction to the principles and practice of Courts of Equity and the law of Bankruptcy; the *Third* Course includes the common law as incident to contracts, the nature and form of remedies by civil action, and an outline of criminal law, theoretical and administrative, which last completes the Curriculum of instruction required for the attainment of the Diploma of Elementary Law in the Queen's University. The subjects prescribed for Students of the *Fourth* year to qualify them for the Degree of LL.B. embrace a more extended and detailed course of the subjects already enumerated, including the law of wills, powers, evidence, and procedure.

JURISPRUDENCE AND POLITICAL ECONOMY—*Professor, T. E. Cliffe Leslie,* LL.B.

The subjects embraced in the Course of Lectures on *Jurisprudence* are according to the regulations of this College, (1) the Elements of Jurisprudence, (2) Civil Law, (3) Constitutional Law, (4) Colonial and International Law.

In the treatment of these subjects both the *Historical* and *Philosophical* Methods are followed in the Lectures of the Professor. The Historical Method, for example, is applied in tracing the principal changes through which the laws of England have passed, the assignable causes of such changes, and the degree and manner in which, in comparison with the laws of Continental Europe, the laws of this kingdom have been affected by contact with the principles of Roman legislation. The method of Philosophical Analysis, on the other hand, is applied in investigating the doctrines of the foundation and classification of rights, the several parts and legitimate form of a complete code, the relation of Scientific Jurisprudence to other departments of Social Philosophy, and the means of improving the state of Positive Law as deducible from such considerations.

The subjects which a Course of Lectures on *Political Economy* must embrace are fewer and more definite than those classed under the less advanced and more complicated Science of Jurisprudence. It is the Professor's endeavour to illustrate the principles of Economic Science by the help of those practical applications which will be most interesting and useful in a large commercial town.

APPENDIX No. 8.

Matriculation Examination, October, 1875.

English Language and Literature.—*Examiner, Professor Yonge,* M.A., Oxon.

1. Give a list of the kings of England between the years 1066 and 1500.
2. Mention one or more of the most remarkable events which occurred in any three of these reigns.
3. What is the meaning of the terms Latitude and Longitude?
4. Draw a small map of Great Britain and Ireland; marking on it the situations of London, Windsor, Winchester, Exeter, Norwich, Northampton, St. Albans, York, Wakefield, Edinburgh, Berwick, Dublin, Belfast, Londonderry, Waterford, Cork, and Limerick.

SUBJECT FOR ESSAY.

Write a short account of the Invasion of England by William the Conqueror.

Mathematics.—*Examiner, Professor Purser.*

ARITHMETIC.

1. If 5 men earn £2 18*s.* 4*d.* in $3\frac{1}{2}$ days; how long will 7 men take to earn £6 8*s.* 4*d.*?
2. Find the value of 13 cwt. 3 qrs. 11 lbs. at £4 10*s.* per cwt.
3. Calculate the interest on £4,576 for 7 months, at $4\frac{1}{2}$ per cent. per annum.
4. Express 1 rood 17 perches as a fraction of 2 roods 4 perches.

Find the value of—

$$\frac{3}{15} - \frac{2}{12} + \frac{1}{20} \text{ and of } \frac{\frac{3}{8} - \frac{4}{11}}{\frac{6}{13} - \frac{5}{11}}.$$

5. Calculate to 3 decimal places—

$$\frac{3{\cdot}007}{{\cdot}19} \text{ and } \frac{\sqrt{5}}{\sqrt{7}}.$$

EUCLID.

1. If one side of a triangle be produced, the exterior angle is greater than either of the interior and opposite angles.
2. Describe a parallelogram equal to a given triangle, and having an angle equal to a given one.
3. If a right line be divided into two equal, and also into two unequal parts, the rectangle under the unequal parts together with the square on the intermediate part is equal to the square on half the line.

Appendix, No. 8.

Matriculation Examination.

ALGEBRA.

1. Simplify the expressions—

$$(a-x)-\frac{3}{2}(x-\frac{1}{2}a)$$

and $$\frac{x+1}{2x-1}-\frac{x-1}{2x+1}=\frac{1-3x}{x(1-2x)}.$$

2. Multiply together $1-x$, $1-x^2$ and $1-x^3$; and divide the result by $1+2x+2x^2+x^3$.

3. Solve the equations—

$$(\alpha.)\ \frac{x-7}{3}+\frac{x-4}{5}=9-\frac{x-11}{4}$$

$$(\beta.)\ \frac{5}{2x-1}=\frac{7}{2x+1}$$

$$(\gamma.)\ \sqrt{x+12}+\sqrt{x-12}=12.$$

Peel Prize Examination.

Peel Prize Examination.

GEOMETRY.—*Examiner, Professor Purser.*

1. The bisectors of the vertical angle of a triangle divide the base internally and externally in the ratio of the sides.

2. In a given triangle is inscribed a varying triangle of given species; show that a certain fixed point P can always be found at which the sides of the varying triangle subtend constant angles.

3. Find the locus of a point such that the sum (or the difference) of the areas it subtends at two given lines may be constant.

4. Show that if the distances of a point from the three vertices of a triangle are respectively equal to the opposite sides of the triangle, the triangle must be rectangular.

5. Show that if in a quadrilateral the ratios of the three rectangles AB.CD, AC.BD, AD.BC to one another are given, the difference of any pair of angles standing on any of the six lines is also given.

6. A and B are two fixed points, one inside the other outside a given circle. Their distances from the centre are respectively m times and n times the radius. Find a point P on the circle such that $n\mathrm{PA}+m\mathrm{PB}$ may be the least possible.

7. If two triangles are such that the lines joining corresponding vertices meet in a common point, the points of intersection of corresponding sides lie in a right line.

8. A tangent is drawn to a circle at C meeting two other tangents in B and D, and the chord of contact in A; show that ABCD form an harmonic system.

9. Draw a circle to touch a given circle, and to pass through two given points.

10. Find the locus of a point such that its polars with regard to three given circles intersect in a common point.

Scholarship Examinations, October, 1875.

Literary Scholarships.—First Year Students.

Greek.—*Examiner, Professor MacDouall.*

I.—Translate the following extract from the *Timon* of Lucianus:—

ΤΙΜΩΝ. *τί τοῦτο; παπαί! χρόνιος ἡμῖν Θρασυκλῆς.* ΘΡΑΣ. *οὐ κατὰ ταὐτά,*[2] *ὦ Τίμων! τοῖς πολλοῖς τούτοις ἀφῖγμαι, οἵπερ τὸν πλοῦτόν σου τεθηπότες*[1] *ἀργυρίου καὶ χρυσίου καὶ δείπνων πολυτελῶν*[2] *ἐλπίδι συνδεδραμήκασι,*[1] *πολλὴν τὴν κολακείαν ἐπιδειξόμενοι προς ἄνδρα—οἷόν σε—ἁπλοϊκὸν*[2] *καὶ τῶν ὄντων κοινωνικόν. οἶσθα γὰρ ὡς μάζα μὲν ἐμοὶ δεῖπνον ἱκανόν, ὄψον δὲ ἡδιστον θύμον ἢ κάρδαμον ἤ—εἴποτε τρυφῴην*[1]*—ὀλίγον τῶν ἁλῶν,*[1] *ποτὸν*[2] *δὲ ἡ ἐννεάκρουνος, ὁ δὲ τρίβων οὗτος ἧς βούλει πορφυρίδος*[2] *ἀμείνων. τὸ χρυσίον μὲν γὰρ οὐδὲν τιμιώτερον τῶν ἐν τοῖς αἰγιαλοῖς ψηφίδων*[1] *μοι δοκεῖ. σοῦ δὲ αὐτοῦ χάριν ἐστάλην,*[1] *ὡς μὴ διαφθείρῃ σε τὸ κάκιστον τοῦτο καὶ ἐπιβουλότατον κτῆμα, ὁ πλοῦτος ὁ πολλοῖς πολλάκις αἴτιος ἀνηκέστων*[2] *συμφορῶν γεγενημένος. εἰ γάρ μοι πείθοιο, μάλιστα ὅλον εἰς τὴν θάλατταν ἐμβαλεῖς αὐτὸν οὐδὲν ἀναγκαῖον ἀνδρὶ ἀγαθῷ ὄντα καὶ τὸν φιλοσοφίας πλοῦτον ὁρᾷν δυναμένῳ· μὴ μέντοι ἐς βάθος, ω 'γαθέ! ἀλλ' ὅσον ἐς βουβῶνας ἐπεμβὰς*[1] *ὀλίγον πρὸ τῆς κυματωγῆς,*[2] *ἐμοῦ ὁρῶντος μόνου. εἰ δὲ μὴ τοῦτο βούλει, σὺ δὴ ἄλλον τρόπον ἀμείνω κατὰ τάχος ἐκφόρησον αὐτὸν ἐκ τῆς οἰκίας μηδ' ὀβολὸν σαυτῷ ἀφείς,*[1] *διαδιδοὺς ἅπασι τοῖς δεομένοις, ᾧ μὲν πέντε δραχμὰς*[2] *ᾧ δὲ μνᾶν ᾧ δὲ ἡμιτάλαντον·*[2] *εἰ δέ τις φιλόσοφος εἴη, διμοιρίαν*[2] *ἢ τριμοιρίαν φέρεσθαι δίκαιος· ἐμοὶ δὲ—καίτοι οὐκ ἐμαυτοῦ χάριν αἰτῶ, ἀλλ' ὅπως μεταδῶ τῶν ἑταίρων τοῖς δεομένοις—ἱκανόν, εἰ ταύτην τὴν πήραν ἐμπλήσας παράσχοις οὐδὲ ὅλους δύο μεδίμνους χωροῦσαν Αἰγινητικούς· ὀλιγαρκῆ*[2] *δὲ καὶ μέτριον χρὴ εἶναι τὸν φιλοσοφοῦντα καὶ μηδὲν ὑπὲρ τὴν πήραν φρονεῖν.* ΤΙΜ. *ἐπαινῶ ταῦτά σου, ὦ Θρασύκλεις! πρὸ γοῦν τῆς πήρας, εἰ δοκεῖ, φέρε σοι τὴν κεφαλὴν ἐμπλήσω*[1] *κονδύλων ἐπιμετρήσας τῇ δικέλλῃ.—μῶν παρακέκρουσμαί*[1] *σε; καὶ μὴν ἐπεμβαλῶ χοίνικας ὑπὲρ τὸ μέτρον τέτταρας.*

II.—1. Parse accurately and fully the words to which the figure 1 is attached, giving such leading tense-forms of verbs as are found in use.

2. Derive or decompound the words to which the figure 2 is attached.

3. Elucidate whatever is noteworthy in the combinations:—*πολλὴν τὴν κολακείαν*,—*οἷόν σε*,—*ἧς βούλει*,—*μὴ ἐς βάθος*,—*ἀλλ' ὅσον ἐς β. ἐπεμβάς*,—*ᾧ μὲν*,—*ᾧ δέ*,—*ἐπαινῶ ταῦτά σου*,—*φέρε ἐμπλήσω*, supplying ellipses which any of them may present.

4. (*a*) What is meant by *ἡ ἐννεάκρουνος*? (*b*) Give approximate values of *δραχμή*, *μνᾶ*, *ἡμιτάλαντον*, *χοῖνιξ*, *μεδίμνος Αἰγινητικός*. (*c*) Discriminate *τρίτον ἡμιτάλαντον* from *τρία ἡμιτάλαντα*, and adduce expressions analogous to the former. (*d*) Illustrate the phrase *μηδὲν ὑπὲρ τὴν πήραν φρονεῖν*.

Appendix, No. 8.

Scholarship Examinations.

Translate the following unprepared passage :—

ὁ δὲ Ἀγησίπολις, ἐπεὶ τὰ διαβατήρια θυομένῳ ἐγένετο, ἐλθὼν εἰς Ὀλυμπίαν χρηστηριαζόμενος ἐπηρώτα τὸν θεὸν εἰ ὁσίως ἂν ἔχοι αὐτῷ μὴ δεχομένῳ τὰς σπονδὰς τῶν Ἀργείων, ὅτι οὐχ ὁπότε καθήκοι ὁ χρόνος, ἀλλ' ὁπότε ἐμβάλλειν μέλλοιεν Λακεδαιμόνιοι, τότε αὐτὰς ὑπέφερον. ὁ δὲ θεὸς ἐπεσήμαινεν αὐτῷ ὅσιον εἶναι μὴ δεχομένῳ σπονδὰς ἀδίκως ὑποφερομένας. ἐκεῖθεν δ' εὐθὺς πορευθεὶς εἰς Δελφοὺς ἐπήρετο αὖ τὸν Ἀπόλλω εἰ κἀκείνῳ δοκοίη περὶ τῶν σπονδῶν καθάπερ τῷ πατρί. ὁ δὲ ἀπεκρίνατο καὶ μάλα κατὰ ταὐτά. καὶ οὕτω δὴ Ἀγησίπολις ἀναλαβὼν τὸ στράτευμα ἐνέβαλε διὰ Νεμέας. οἱ δ' Ἀργεῖοι, ἐπεὶ ἔγνωσαν οὐ δυνησόμενοι κωλύειν, ἔπεμψαν, ὥσπερ εἰώθεσαν, ἐστεφανωμένους δύο κήρυκας ὑποφέροντας σπονδάς. ὁ δὲ Ἀγησίπολις, ἀποκρινάμενος ὅτι οὐ δοκοῖεν τοῖς θεοῖς δικαίως ὑποφέρειν, οὐκ ἐδέχετο τὰς σπονδάς, ἀλλ' ἐνέβαλε καὶ πολλὴν ἀπορίαν καὶ ἔκπληξιν κατά τε τοὺς ἀγροὺς καὶ ἐν τῇ πόλει ἐποίησε.

LATIN.—*Examiner, Professor Nesbitt.*

1.—Translate :—

(*a*) Verginius arripi iubet hominem et in vincula duci. patricii vi contra vim resistunt. T. Quinctius clamitat, cui rei capitalis dies dicta sit et de quo futurum prope diem iudicium, eum indemnatum indicta causa non debere violari. tribunus supplicium negat sumpturum se de indemnato; servaturum tamen in vinculis esse ad iudicii diem, ut, qui hominem necaverit, de eo supplicii sumendi copia populo Romano fiat. appellati tribuni medio decreto ius auxilii sui expediunt: in vincla conici vetant; sisti reum pecuniamque, nisi sistatur, populo promitti placere pronuntiant. summam pecuniae quantam aequum esset promitti, venibat in dubium. id ad senatum reicitur. reus, dum consulerentur patres, retentus in publico est. vades dare placuit. unum vadem ternis milibus aeris obligaverunt. quot darentur, permissum tribunis est. decem finierunt. tot vadibus accusator vadatus est reum. hic primus vades publicos dedit. dimissus e foro nocte proxima in Tuscos in exsilium abiit, iudicii die cum excusaretur solum vertisse exsilii causa. nihilo minus Verginio comitia habente collegae appellati dimisere concilium. pecunia a patre exacta crudeliter, ut divenditis omnibus bonis aliquamdiu trans Tiberim veluti relegatus devio quodam tugurio viveret.

(*b*) Quinque tribunis plebi creatis, cum prae studiis aperte petentium novem tribunorum alii candidati tribus non explerent, concilium dimisit nec deinde comitiorum causa habuit. satisfactum legi aiebat, quae numero nusquam praefinito tribunis, modo ut relinquerentur sanciret, et ab his qui creati essent cooptari collegas iuberet. recitabatque rogationis carmen, in quo : 'si tribunos plebei decem rogabo, si qui vos minus hodie decem tribunos plebis feceritis, tum ut ii, quos sibi collegas cooptassint, ut illi legitimi eadem lege tribuni plebei sint ut illi, quos hodie tribunos plebei feceritis.' Duellius, cum ad ultimum perseverasset negando quindecim tribunos plebei rem publicam habere posse, victa collegarum cupiditate pariter patribus plebeique acceptus magistratu abiit.

2. Translate, with grammatical or other comments :—

(*a*) 'Invitus,' inquit, 'quod sequius sit de meis civibus loquor. Non tamen admissum quidquam ab his criminatum venio.'

(*b*) In multa temperarunt tribuni : quum capitis anquisissent, duo milia aeris multam dixerunt.

(*c*) Dicto paruere; desiliunt ex equis, provolant in primum, et pro antesignanis parmas obiciunt.

(*d*) Se iterum ac saepius iudicem ei ferre, ni vindicias ab libertate in servitutem dederit.

(*e*) Scaptione hoc contionali seni adsignaturos putarent finitimos populos? clarum hac fore imagine Scaptium: sed populum Romanum quadruplatoris et interceptoris litis alienae personam laturum.

3. Translate, with short notes where needed:—

(*a*) Est enim varius et multiplex usus amicitiae multaeque causae suspicionum offensionumque dantur, quas tum evitare, tum elevare, tum ferre sapientis est. Una illa sublevanda est offensio, ut et utilitas in amicitia et fides retineatur: nam et monendi amici saepe sunt et obiurgandi et haec accipienda amice, quum benevole fiunt.

(*b*) Quibus blanditiis C. Papirius nuper influebat in aures contionis, quum ferret legem de tribunis plebis reficiendis! Dissuasimus nos: sed nihil de me, de Scipione dicam libentius. Quanta illi, di immortales! fuit gravitas, quanta in oratione maiestas! ut facile ducem populi Romani, non comitem diceres. Sed adfuistis et est in manibus oratio. Itaque lex popularis suffragiis populi repudiata est. Atque, ut ad me redeam, meministis Q. Maximo fratre Scipionis et L. Mancino consulibus, quam popularis lex de sacerdotiis C. Licinii Crassi videbatur! Cooptatio enim collegiorum ad populi beneficium transferebatur. Atque is primus instituit in forum versus agere cum populo. Tamen illius vendibilem orationem religio deorum immortalium nobis defendentibus facile vincebat.

4. Translate into Latin Prose:—

A circumstance which is mentioned by Diodorus Siculus, served, in all probability, as a powerful inducement to the Romans, to reward the submission of the Italians as early as possible with the privileges which they so earnestly desired. It appears that the confederates had applied for aid to Mithridates, king of Pontus, whose power and ambition were now disposing him to enter into a contest with the Romans. Either his pride or his want of sufficient information, dictated to him his most ill-judged answer, and led him to commit a fault in policy, which the ability and vigour of all his after-life could not repair. He told the Italians that he would lead his armies into Italy as soon as he had secured the dominion of Asia Minor. But the fortune of his intended allies could brook no delay; and a bare suspicion of so formidable an accession to their enemy's force would dispose the Romans to hasten their measures of conciliation. Accordingly, the Italian war vanishes almost instantaneously from our notice; one state after another submitted and received the gift of Roman citizenship; and after the close of the second year of the contest, we find only some faint sparks remaining of the vast conflagration, which had so lately involved all Italy.

1. Translate:—

(*a*) Limen erat caecaeque fores et pervius usus
Tectorum inter se Priami, postesque relicti
A tergo, infelix qua se, dum regna manebant,
Saepius Andromache ferre incomitata solebat
Ad soceros, et avo puerum Astyanacta trahebat.
Evado ad summi fastigia culminis, unde
Tela manu miseri iactabant irrita Teucri.
Turrim, in praecipiti stantem summisque sub astra

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Eductam tectis, unde omnis Troia videri
Et Danaum solitae naves et Achaica castra,
Aggressi ferro circum, qua summa labantis
Iuncturas tabulata dabant, convellimus altis
Sedibus impulimusque: ea lapsa repente ruinam
Cum sonitu trahit et Danaum super agmina late
Incidit.

(*b*) Olli discurrere pares atque agmina terni
Diductis solvere choris, rursusque vocati
Convertere vias infestaque tela tulere.
Inde alios ineunt cursus aliosque recursus
Adversi spatiis, alternosque orbibus orbes
Impediunt, pugnaeque cient simulacra sub armis;
Et nunc terga fuga nudant, nunc spicula vertunt
Infensi, facta pariter nunc pace feruntur.
Ut quondam Creta fertur Labyrinthus in alta
Parietibus textum caesis iter, ancipitemque
Mille viis habuisse dolum, qua signa sequendi
Falleret indeprensus et irremeabilis error.

Write short notes on 'soceros'; 'in praecipiti stantem'; 'impulimus' 'ruinam trahit'; 'diductis choris'; 'signa sequendi.'

2. Translate:—

(*a*) Occidit et Pelopis genitor, conviva deorum,
Tithonusque remotus in auras,
Et Iovis arcanis Minos admissus, habentque
Tartara Panthoiden iterum Orco
Demissum, quamvis, clipeo Troiana refixo
Tempora testatus, nihil ultra
Nervos atque cutem morti concesserat atrae,
Iudice te non sordidus auctor
Naturae verique. Sed omnes una manet nox
Et calcanda semel via leti.
* * * * *
Sic, quodcunque minabitur Eurus
Fluctibus Hesperiis, Venusinae 26
Plectantur silvae te sospite, multaque merces,
Unde potest, tibi defluat aequo
Ab Iove Neptunoque sacri custode Tarenti.
Negligis immeritis nocituram
Postmodo te natis fraudem committere? Fors et
Debita iura vicesque superbae
Te maneant ipsum: precibus non linquar inultis,
Teque piacula nulla resolvent.
Quanquam festinas, non est mora longa; licebit
Iniecto ter pulvere curras.

Which of the numerous theories with regard to the scene, the nature, and the division of this Ode, do you adopt, and why? What argument is based on 'Venusinae,' v. 26?

(*b*) Tu secanda marmora
Locas sub ipsum funus et, sepulcri
Immemor, struis domos,
Marisque Baiis obstrepentis urges
Summovere litora,
Parum locuples continente ripa.

Quid, quod usque proximos
Revellis agri terminos, et ultra
Limites clientium
Salis avarus? Pellitur paternos
In sinu ferens deos
Et uxor et vir sordidosque natos.
Nulla certior tamen
Rapacis Orci fine destinata
Aula divitem manet
Herum. Quid ultra tendis? Aequa tellus
Pauperi recluditur
Regumque pueris, nec satelles Orci
Callidum Promethea
Revexit auro captus. Hic superbum
Tantalum atque Tantali
Genus coercet, hic levare functum
Pauperem laboribus
Vocatus atque non vocatus audit.

Write a note on 'nulla certior,' etc.

3. *Unseen Latin.*

Atque utinam possis uni mihi bella videri,
Displiceas aliis! sic ego tutus ero.
Nil opus invidia est, procul absit gloria vulgi:
Qui sapit, in tacito gaudeat ille sinu.
Sic ego secretis possum bene vivere silvis,
Qua nulla humano sit via trita pede.
Tu mihi curarum requies, tu nocte vel atra
Lumen, et in solis tu mihi turba locis.
Nunc licet e caelo mittatur amica Tibullo,
Mittetur frustra, deficietque Venus.
Haec tibi sancta tuae Iunonis numina iuro,
Quae sola ante alios est mihi magna deos.
Quid facio demens? heu heu mea pignora cedo.
Iuravi stulte: proderat iste timor.
Nunc tu fortis eris, nunc tu me audacius ures:
Hoc peperit misero garrula lingua malum.
Iam faciam quodcunque voles, tuus usque manebo,
Nec fugiam notae servitium dominae,
Sed Veneris sanctae considam vinctus ad aras.
Haec notat iniustos, supplicibusque favet.

4. Translate into Latin Verse:—

Smooth life had flock and shepherd in old time,
Long springs and tepid winters, on the banks
Of delicate Galesus; and no less
Those scattered along Adria's myrtle shores:
Smooth life had herdsman and his snow-white herd,
To triumphs and to sacrificial rites
Devoted, on the inviolable stream
Of rich Clitumnus; and the goat-herd lived
As calmly underneath the pleasant brows
Of cool Lucretilis, where the pipe was heard
Of Pan, invisible God, thrilling the rocks
With tutelary music, from all harm
The fold protecting.

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HISTORY.—*Examiner, Professor Yonge,* M.A., Oxon.

1. What transactions show an intercourse or connexion between England and Ireland in the reign of William the Conqueror?

2. What was the Domesday Book?

3. Between the years 1066 and 1500, how many kings of England were disturbed by rebellion? Name the leaders, and explain the cause of each rebellion.

4. We read in the History of France of the Salic Law; which was interpreted as forbidding a female to succeed to the throne. When was it first decided that that principle of succession did not prevail in England? And how did that law furnish a pretext for the war waged by Edward III. against France?

Write a short essay on the character of Edward I., and on the chief incidents which make his reign memorable.

SECOND YEAR STUDENTS.

GREEK.—*Examiner, Professor MacDouall.*

I.—Translate the following strophes from the *Helene* of EURIPIDES:—

σὲ τὰν ἐναυλείοις ὑπὸ δενδροκόμοις — στρ.
μουσεῖα καὶ θάκους ἐνίζουσαν ἀναβοάσω,
σὲ τὰν ᾠδοτάταν ὄρνιθα μελῳδὸν
ἀηδόνα δακρυόεσσαν.
ἐλθ' ὦ διὰ ξουθᾶν γενύων ἐλελιζομένα
θρήνοις ἐμοῖς ξύνεργός,
Ἑλένας μελέους πόνους
τὸν Ἰλιάδων τ' ἀειδούσᾳ δακρυόεντα πότμον
Ἀχαιῶν ὑπὸ λόγχαις.
ὀλέθριος ἔμολε, πεδία βαρβάρῳ πλάτᾳ
ὃς ἔδραμε ῥόθια, μέλεα Πριαμίδαις ἄγων
Λακεδαίμονος ἄπο λέχη
σέθεν, ὦ Ἑλένα, Πάρις αἰνόγαμος
πομπαῖσιν Ἀφροδίτας.
πρόμοι δ' Ἀχαιῶν ἐν δορὶ καὶ πετρίναις — ἀντ.
ῥιπαῖσιν ἐκπνεύσαντες Ἄιδαν μέλεοι ἔχουσιν,
ταλαινῶν ἀλόχων κείραντες ἔθειραν·
ἄνυμφα δὲ μέλαθρα κεῖται·
πολλοὺς δὲ πυρσεύσας φλογερὸν σέλας ἀμφὶ κλυτὰν
Εὔβοιαν εἶλ' Ἀχαιῶν
μονόκωπος ἀνήρ, πέτραις
Καφηρίσιν ἐμβαλὼν Αἰγαίαις τ' ἐνάλοισιν ἀκταῖς,
δόλῳ ἀστέρα λάμψας.
ὁ δ' ἔσυτο πατρίδος ἀποπρὸ βαρβάρου χθονὸς

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ἀλίμενα πόσις ἐφ' ὅρια χειμάτων πνοᾷ,
γέρας οὐ γέρας, ἔριν ἔριν
Δαναῶν, νεφέλαν ἐπὶ ναυσὶν ἄγων,
εἴδωλον ἱρὸν Ἥρας.

II.—1. Elucidate very concisely the usage in this passage of the words *ἐναυλείοις, μουσεῖα, ἀναβοάσω, ᾠδοτάταν, λέχη, πυρσεύσας, ἀστέρα, ἔριν, ἔσυτο*; and of the combinations *ξουθᾶν γενύων, θρήνοις ἐμοῖς—ἀειδούσᾳ, πεδία ἔδραμε ῥόθια, ἐν δορὶ καὶ πετρίναις ῥιπαῖσιν, κείραντες ἔθειραν, μονόκωπος ἀνήρ.*

2. (*a*) Who is the subject of the last five lines, and what adventure of his is referred to? And (*b*) who is the subject of the previous five lines, and what proceeding of his is described?

3. Define the localities named or suggested in those ten lines.

4. Can you date the first exhibition of the *Helene*?

Translate perspicuously the following unprepared passage:—

φασὶ τὸν Κλέαρχον παιδείας μὲν τῆς κατὰ φιλοσοφίαν οὐκ ἀγύμναστον ἀλλὰ καὶ Πλάτωνος τῶν ἀκροατῶν ἕνα γεγονέναι καὶ Ἰσοκράτους τοῦ ῥήτορος τετραετίαν, ὠμὸν δὲ τοῖς ὑπηκόοις καὶ μιαιφόνον—εἴπερ τινὰ ἄλλον—ἐπιδειχθῆναι, καὶ εἰς ἄκρον ἀλαζονείας ἐλάσαι, ὡς καὶ Διὸς υἱὸν ἑαυτὸν ἀνειπεῖν, καὶ τὸ πρόσωπον μὴ ἀνέχεσθαι ταῖς ἐκ φύσεως χρωματίζεσθαι βαφαῖς, ἄλλαις δὲ καὶ ἄλλαις ἰδέαις ποικιλλόμενον ἐπὶ τὸ στιλπνὸν καὶ ἐρευθὲς τοῖς ὁρῶσιν ἐπιφαίνεσθαι, ἐξαλλάττειν δὲ καὶ τοὺς χιτῶνας ἐπὶ τὸ φοβερόν τε καὶ ἀβρότερον. γενέσθαι δὲ καὶ πρὸς τοὺς εὐεργέτας ἀχάριστον καὶ πάντα βιαιόν τε καὶ τὰ ἄτοπα τολμηρόν· φῦναι δὲ δεινὸν οὐ κατὰ τῶν ὁμοφύλων μόνον ἀλλὰ καὶ εἴτι ἐν ἀλλοφύλοις ἐφρόνει πολέμιον. βιβλιοθήκην μέντοι κατασκευάσαι πρὸ τῶν ἄλλων οὗς ἡ τυραννὶς ἀπέδειξεν ὀνομάζεσθαι. ἐπιβουλὰς δὲ πολλὰς πολλάκις διὰ τὸ μισάνθρωπον καὶ ὑβριστικὸν κατ' αὐτοῦ συστάσας διαφυγεῖν, ὀψὲ δὲ καὶ μόλις ὑπὸ Χίωνος τρωθέντα ἀποθανεῖν.

LATIN.—*Examiner, Mr. Tyrrell.*

I. De Sicyoniis, ut ad te scripsi antea, non multum spei est in senatu. Nemo est enim iam qui queratur. Qua re, si id exspectas, longum est. Alia via, si qua potes, pugna. Quum est actum, neque animadversum est ad quos pertineret et raptim in eam sententiam pedarii cucurrerunt. Inducendi senatus consulti maturitas nondum est, quod neque sunt qui querantur et multi partim malevolentia, partim opinione aequitatis delectantur. Metellus tuus est egregius consul: unum reprehendo, quod ocium nunciari e Gallia non magno opere gaudet. Cupit, credo, triumphare. Hoc vellem mediocrius: cetera egregia. Auli filius vero ita se gerit, ut eius consulatus non consulatus sit, sed Magni nostri *ὑπώπιον*. De meis scriptis, misi ad te Graece perfectum consulatum meum. Eum librum L. Cossinio dedi. Puto te Latinis meis delectari, huic autem Graeco Graecum invidere. Alii si scripserint, mittemus ad te, sed, mihi crede, simul atque hoc nostrum legerunt, nescio quo pacto retardantur. Nunc, ut ad rem meam redeam, L. Papirius Paetus, vir bonus amatorque noster, mihi libros eos, quos Ser. Claudius reliquit, donavit. Quum mihi per legem Cinciam licere capere Cincius amicus tuus diceret, libenter dixi

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me accepturum, si attulisset. Nunc si me amas, si te a me amari scis, enitere per amicos, clientes, hospites, libertos denique ac servo tuos, ut scida ne qua depereat.—CICERO, *Ad Att.*, i., 20, § 4.

De Sicyoniis. To what affair does Cicero refer in these words?

Whom does Cicero nickname the *piscinarii?* Under what pseudonyms does he refer to Pompeius?

What is the ordinary meaning of *ὑπώπιον*?

What *Greek* word or phrase does Cicero use in the same sense in which we use the following *French* words or phrases:—*Savant, l'homme propose, en bloc, mauvais sujet, éloges, entourage?*

What was the Lex Cincia?

II. Neque tam me *εὐελπιστία* consolatur, ut antea, quam *ἀδιαφορία*, qua nulla in re tam utor quam in hac civili et publica. Quin etiam, quod est subinane in nobis et non *ἀφιλόδοξον*—bellum est enim sua vitia nosse—adficitur quadam delectatione. Solebat enim me pungere, ne Sampsicerami merita in patriam ad annos DC. maiora viderentur quam nostra: hac quidem cura certe iam *vacuum* est. Iacet enim ille sic, ut *πτῶσις* Curiana stare videatur. Sed haec coram. Tu tamen videris mihi Romae fore ad nostrum adventum: quod sane facile patiar, si tuo commodo fieri possit. Sin, ut scribis, ita venies, velim e Theophane expiscere quonam in me animo sit Alabarches. Quaeres scilicet, ut soles, *κατὰ τὸ κηδεμονικὸν* et ad me ab eo quasi *ὑποθήκας* adferes, quem ad modum me geram. Aliquid ex eius sermone poterimus *περὶ τῶν ὅλων* suspicari.—CICERO, *Ad Att.*, ii., 17, § 2.

What is the construction of *vacuum* in the above passage?

How has the following passage been emended?—Clodius ergo ad Tigranem. Velim *Syrpiae* conditione?

Explain:—

Quid enim *ἀκκιζόμεθα* tam diu?
Mirabiliter enim moratus est, sicut nosti, *ἑλικτὰ καὶ οὐδέν.*
Abest frater *ἀφελέστατος.*
Quod ille recusarit satis dare AMPLIUS ABS TE NON PETI.

III. Gracchus adsidens tantum Casilino, quia praedictum erat dictatoris, ne quid absente eo rei gereret, nihil movebat, quamquam quae facile omnem patientiam vincerent nuntiabantur a Casilino: nam et praecipitasse se quosdam non tolerantes famem constabat, et stare inermes in muris nuda corpora ad missilium telorum ictus praebentes. Ea aegre patiens Gracchus, cum neque pugnam conserere dictatoris iniussu auderet—pugnandum autem esse, si palam frumentum importaret, videbat—neque clam importandi spes esset, farre ex agris circa undique convecto cum complura dolia complesset, nuntium ad magistratum Casilinum misit, ut exciperent dolia quae amnis deferret. Insequenti nocte intentis omnibus in flumen ac spem ab nuntio Romano factam dolia medio missa amni defluxerunt; aequaliterque inter omnes frumentum divisum. Id postero quoque die ac tertio factum est: nocte et mittebantur et perveniebant; eo custodias hostium fallebant. Imbribus deinde continuis citatior solito amnis transverso vertice dolia impulit ad ripam quam hostes servabant. Ibi haerentia inter obnata ripis salicta conspiciuntur; nuntiatumque Hannibali est, et deinde intentiore custodia cautum, ne quid falleret Vulturno ad urbem missum. Nuces tamen fusae ab Romanis castris cum medio amni ad Casilinum defluerent, cratibus excipiebantur. Postremo ad id ventum inopiae est, ut lora detractasque scutis pelles, ubi fervida mollissent aqua, mandere conarentur, nec muribus aliove animali abstinerent, et omne herbarum radicumque genus aggeribus

infimis muri eruerent. Et cum hostes obarassent quidquid herbidi terreni extra murum erat, raporum semen iniecerunt, ut Hannibal "eone usque, dum ea nascantur, ad Casilinum sessurus sum?" exclamaret: et qui nullam antea pactionem auribus admiserat, dum demum agi secum est passus de redemptione liberorum capitum. Septunces auri in singulos pretium convenit. Fide accepta tradideruut sese. Donec omne aurum persolutum est, in vinculis habiti; tum remissi Cumas cum fide. Id verius est quam ab equite in abeuntis immisso interfectos.—Liv., xxiii., 19.

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FOR LATIN PROSE.

(In the style of Cicero's Letters.)

All great cities abound with little men, whose object it is to be the stars of the dinner-table, and grand purveyors of all the stray jokes of the town. So long as these confine themselves to fetch and carry for their masters, they succeed tolerably well, but the moment they set up for originality, and turn manufacturers instead of retailers, they are ruined. Like the hind wheel of the carriage, which is in constant pursuit of the fore, without ever overtaking it; so these become the doubles of a Selwyn or a Sheridan, but without ever coming up to them. They are constantly near wit without being witty, as his valet is always near a great man without being great.—Colton.

I. Urbi festus erat, dixere Parilia patres,
Hic primus coepit moenibus esse dies,
Annua pastorum convivia, lusus in urbe,
Cum pagana madent fercula deliciis,
Cumque super raros faeni flammantis acervos
Traicit inmundos ebria turba pedes.
Romulus excubias decrevit in otia solvi
Atque intermissa castra silere tuba.
Hoc Tarpeia suum tempus rata convenit hostem:
Pacta ligat, pactis ipsa futura comes.
Mons erat ascensu dubius festoque remissus:
Nec mora, vocales occupat ense canes.
Omnia praebebant somnos: sed Iuppiter unus
Decrevit poenis invigilare tuis.
Prodiderat portaeque fidem patriamque iacentem,
Nubendique petit, quem velit ipse diem.
At Tatius (neque enim sceleri dedit hostis honorem)
'Nube,' ait, 'et regni scande cubile mei.'
Dixit, et ingestis comitum super obruit armis.
Haec, virgo, officiis dos erat apta tuis.
A duce Tarpeia mons est cognomen adeptus:
O vigil, iniustae praemia sortis habes.

Propertius, v., 4, 73–94.

II. Si tecum mihi, care Martialis,
Securis liceat frui diebus,
Si disponere tempus otiosum
Et verae pariter vacare vitae:
Nec nos atria, nec domos potentum,
Nec lites tetricas forumque triste
Nossemus, nec imagines superbas
Sed gestatio, fabulae, libelli,

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Campus, porticus, umbra, virgo, thermae,
Haec essent loca semper, hi labores.
Nunc vivit necuter sibi bonosque
Soles effugere atque abire sentit,
Qui nobis pereunt et imputantur.
Quisquam vivere cum sciat, moratur?

MARTIAL, v., 20.

III. Etrusci nisi thermulis lavaris,
Illotus morieris, Oppiane.
Nullae sic tibi blandientur undae,
Nec fontes Aponi rudes puellis,
Non mollis Sinuessa fervidique
Fluctus Passeris aut superbus Anxur,
Non Phoebi vada principesque Baiae.
Nusquam tam nitidum vacat serenum:
Lux ipsa est ibi longior, diesque
Nullo tardius a loco recedit.
Illic Taygeti virent metalla
Et certant vario decore saxa,
Quae Phryx et Libys altius cecidit;
Siccos pinguis onyx anhelat aestus
Et flamma tenui calent ophitae.
Ritus si placeant tibi Laconum,
Contentus potes arido vapore
Cruda Virgine Marciave mergi;
Quae tam candida, tam serena lucet,
Ut nullas ibi suspiceris undas
Et credas vacuam nitere lygdon.
Non attendis, et aure me supina
Iam dudum quasi negligenter audis.
Illotus morieris, Oppiane.

MARTIAL, vi., 42.

IV. Haec satis ad iuvenem, quem nobis fama superbum
Tradit et inflatum plenumque Nerone propinquo.
Rarus enim ferme sensus communis in illa
Fortuna; sed te censeri laude tuorum,
Pontice, noluerim sic ut nihil ipse futurae
Laudis agas. Miserum est aliorum incumbere famae
Ne collapsa ruant subductis tecto columnis.
Stratus humi palmes viduas desiderat ulmos.
Esto bonus miles, tutor bonus, arbiter idem
Integer: ambiguae si quando citabere testis
Incertaeque rei, Phalaris licet imperet ut sis
Falsus et admoto dictet periuria tauro,
Summum crede nefas animam praeferre pudori
Et propter vitam vivendi perdere causas.
Dignus morte perit, caenet licet ostrea centum
Gaurana et Cosmi toto mergatur aeno.
Exspectata diu tandem provincia quum te
Rectorem accipiet, pone irae frena modumque,
Pone et avaritiae, miserere inopum sociorum:
Ossa vides rerum vacuis exsucta medullis.

JUVENAL, viii., 71–90.

Appendix, No. 8.

Scholarship Examinations.

V. Accipe, quae contra valeat solatia ferre
Et qui nec Cynicos, nec Stoica dogmata legit
A Cynicis tunica distantia, non Epicurum
Suspicit exigui lactum plantaribus horti.
Curentur dubii medicis maioribus aegri,
Tu venam vel discipulo committe Philippi.
Si nullum in terris tam detestabile factum
Ostendis, taceo, nec pugnis caedere pectus
Te veto nec plana faciem contundere palma;
Quandoquidem accepto claudenda est ianua damno,
Et maiore domus gemitu, maiore tumultu
Planguntur nummi, quam funera. Nemo dolorem
Fingit in hoc casu, vestem diducere summam
Contentus, vexare oculos humore coacto:
Ploratur lacrimis amissa pecunia veris.
Sed si cuncta vides simili fora plena querella,
Si decies lectis diversa parte tabellis
Vana supervacui dicunt chirographa ligni,
Arguit ipsorum quos littera gemmaque princeps
Sardonychum, loculis quae custoditur eburnis:
Ten,' o delicias! extra communia censes
Ponendum, quia tu gallinae filius albae,
Nos viles pulli, nati infelicibus ovis?

JUVENAL, xiii., 120–142.

Sketch the history of Roman Satire. How did the early *Satura* differ from it?

Quote passages from Juvenal which throw light on his personal history.

Contrast Juvenal and Tacitus as moralists.

Quote the allusions in Juvenal to Lucilius, Horace, Virgil, and Cicero.

LATIN VERSE.

The bride is dead! the bride is dead!
Cold and fair and frail she lieth;
Wrapt is she in sullen lead;
And a flower is at her head;
And the breeze above her sigheth,
Through the night and through the day,
"Fled away! fled away!"

Once—but what can that avail?—
Once she wore within her bosom
Pity which did never fail;
A hue that dash'd the lily pale;
And upon her cheek a blossom
Such as yet was never known:—
All is past and overthrown!

Mourn! the sweetest bride is dead;
And her knight is sick with sorrow
That her bloom is lapp'd in lead;
Yet he hopeth, fancy fed,
He may kiss his love to-morrow.
But the breezes—what say they?
"Fled away! fled away!"

BARRY CORNWALL.

Appendix, No. 8.

Scholarship Examinations.

ENGLISH LITERATURE.—*Examiner, Profesor Yonge,* M.A., Oxon.

1. Some critics have objected to the title of the play "Julius Cæsar," that the name is inappropriate, since Cæsar is not the principal character or hero. Whom do these commentators regard as the hero? Examine their objection: illustrating it, if necessary, by references to, or quotations from the play.

2. Comment on the following passages:—

Oh, now you weep: and I perceive you feel
The dint of pity.

Disrobe the images
If you do find them deck'd with ceremonies.

I, as Æneas, our great ancestor,
Did from the flames of Troy upon his shoulder
The old Anchises bear.

Yet I see
Thy honourable metal may be wrought
From that it is disposed.

'Tis a common proof
That lowliness is young ambition's ladder.

3. Some critics have divided English Literature by different "Ages." What are those divisions? To which "Age" does Pope belong? And who were the principal ornaments of it, besides himself?

4. What are the subjects of the Four Epistles of the Essay on Man? or, in what different aspects does he regard "the nature and state of man" in each epistle?

5. Pope sums up the first, second and third epistles in a couplet at the end, and the whole in a short paragraph at the end of the fourth. Quote as much of these as you can remember.

6. Give a brief account of the origin and growth of the British power in India before the arrival of Clive.

7. What were the battles of Plassey; of Wandewash; of Porto Novo?

8. Compare the careers and characters of Clive and Hastings.

MODERN LANGUAGES.—*Examiner, Professor Meissner.*

FRENCH.

Translate into French:—

I. He is not only not learned, but he is ignorant. The whole town knows me. He has betrayed us all. I have not found your sister anywhere. It is to you that I am speaking. I have bought a very interesting book; I shall lend it to you when I have read it. A sovereign is worth twenty-five francs. It would ill become me to find fault with any of your arrangements. A great misfortune well-nigh happened us. Let us learn to despise the prejudices of birth and wealth. I know well what he said. If you would read louder, we should hear you better. It is growing late. I am going to have my books bound.

II. I was travelling in a railway-carriage with a most precise-looking formal person. His countenance was very noble, or had been so, before it was frozen up. He said nothing: I felt a great respect for him. At last his mouth opened. I listened with attention: I had hitherto lived with foolish, dinner-eating, dancing people: now I was going to hear the

words of retired wisdom; when he thus addressed his young daughter sitting opposite: "Hast thee heard how Southamptons went lately?" (in those days South-western Railway shares were called Southamptons); and she replied with like gravity, giving him some information that she had picked up about Southamptons yesterday evening.—HELPS.

Translate into English:—

III. L'armée vendéenne était en marche sur Nantes, elle était peu nombreuse et peu animée. Les soldats s'eloignaient de leurs foyers, et un grand nombre de paysans avaient refusé de quitter le voisinage de leurs paroisses. M. de la Rochejaquelein avait été chargé, bien contre son gré, de la garde de Saumur; on agissait de concert avec M. de Charette et de Lyrot, soulevés dans le bas Poitou et qui avaient le plus grand intérêt à s'emparer de Nantes, d'où partaient toutes les expéditions dirigées contre eux. Les plus hardis parmi les généraux avaient proposé de marcher sur-le-champ contre Paris, mais les curés et les chefs des paysans avaient secoué la tête; ils savaient qu'on n'entraînerait pas si loin de ses foyers ce peuple de laboureurs, soulevé pour la défense du sol et de la religion, mais ignorant, craintif, attaché aux lieux comme à la famille, et pour lequel Paris restait une région inconnue d'où venaient tous les maux et tous les troubles.

MADAME DE WITT.

IV. Et sur quoi donc faut-il que s'exercent mes vers?
Irai-je dans une ode, en phrases de Malherbe,
Troubler dans ses roseaux le Danube superbe;
Délivrer de Sion le peuple gémissant;
Faire trembler Memphis, ou pâlir le croissant;
Et, passant du Jourdain les ondes alarmées,
Cueillir, mal-à-propos, les palmes idumées?
Viendrai-je, en une églogue, entouré de troupeaux,
Au milieu de Paris enfler mes chalumeaux,
Et, dans mon cabinet assis au pied des hêtres,
Faire dire aux échos des sottises champêtres?
Faudra-t-il de sang-froid, et sans être amoureux,
Pour quelque Iris en l'air faire le langoureux;
Lui prodiguer les noms de Soleil et d'Aurore,
Et toujours bien mangeant mourir par métaphore?
Je laisse aux doucereux ce langage affété,
Où s'endort un esprit de mollesse hébêté.

BOILEAU.

V. *Philological Questions:*

1. How do you distinguish words of modern and ancient formation? Exemplify.

2. Give the etymologies of *vapeur*, *double*, *chèvre*, *savoir*, and comment on the change of the middle consonant.

3. When and by whom was the Germanic element introduced into the French language?

GERMAN.

Translate into German:

You must lose no time. I have slept all night. When did it happen? Which of the boys reads most correctly? I have written the translation most carefully. As the railway-train had been detained by an accident, the letters arrived three hours later than usual. He looks as if he had no good conscience. Do you insist upon it? I have heard of it. She

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will do it herself. The pupil has been praised by the teacher. What would you say, if you were asked? Have you shut the door? We rise early. He has been obliged to obey. What are we to do? You may read this letter. What would he say, if he knew it? The mountains are higher than they appear. A faithful friend is a great treasure.

Translate into English:

II. Am unglücklichsten ging es in den Zeiten des Faustrechts den gemeinen freien Leuten auf dem Lande. Ihre Höfe und Felder lagen offen da. Wenn die adeligen Nachbarn ihre Fehde ausfochten, so ging es oft über des Landmanns Acker hin, seine Saaten wurden von den Hufen der Pferde zertreten, ja sein Haus und Hof oft eine Beute der Flamme. Doch waren diese vielen kleineren Fehden in der Zeit der späteren karolingischen Könige, von denen wir zunächst reden, noch selten; damals richteten die Raubzüge der Normänner, Slaven und Ungarn viel größeres Unheil an. Städte, in deren Mauern sich die Landleute etwa hätten retten können, gab es im Innern von Deutschland, wie wir wissen, noch so gut wie gar nicht; daher konnten die räuberischen Feinde bei jedem Zuge viele Tausende von Männern, Frauen und Kindern als Sclaven mit sich fortführen und lange Landstriche lagen verödet da.—KOHLRAUSCH.

III. Zu Aachen in seiner Kaiserpracht
Im alterthümlichen Saale
Saß König Rudolfs heilige Macht
Beim festlichen Krönungsmahle.
Die Speisen trug der Pfalzgraf des Rheins,
Es schenkte der Böhme des perlenden Weins,
Und alle die Wähler, die sieben,
Wie der Sterne Chor um die Sonne sich stellt,
Umstanden geschäftig den Herrscher der Welt,
Die Würde des Amtes zu üben.

Und rings erfüllte den hohen Balkon
Das Volk in freud'gem Gedränge;
Laut mischte sich in der Posaunen Ton
Das jauchzende Rufen der Menge;
Denn geendigt nach langem verderblichen Streit
War die kaiserlose, die schreckliche Zeit,
Und ein Richter war wieder auf Erden;
Nicht blind mehr waltet der eiserne Speer,
Nicht fürchtet der Schwache, der Friedliche mehr,
Des Mächtigen Beute zu werden.—SCHILLER.

SCIENCE SCHOLARSHIPS.—FIRST YEAR STUDENTS.

MATHEMATICS.—*Examiner, Professor Purser.*

ALGEBRA AND ARITHMETIC.

1. *A* and *B* start in business separately each with £1,000. *A* gains over and above his expenses 5 per cent. on his capital the first year, and 15 per cent. each of the three following years. *B* gains 20 per cent. the first year, and 10 per cent. each of the three following years. Find at the end of the fourth year which has most, and how much.

N.B. The gain per cent. is computed on the capital as it stands at the beginning of each year.

2. Find the value of 59 cwt. 3 qrs. 15 lbs. at £6 11*s.* 6*d.* per cwt., and of 17 sq. yds. 8 sq. ft. 109 sq. in. at 12*s.* 9*d.* per sq. yd.

3. Calculate to three decimal places

$$\frac{(1{\cdot}349)(5{\cdot}678)}{(\cdot 495)(92{\cdot}7)} \quad \text{and} \quad \frac{\sqrt{11}-\sqrt{7}}{\sqrt{11}+\sqrt{7}}.$$

4. A series of consecutive odd numbers added together make 45. The even numbers lying between them added together make 36; find the numbers.

5. Find the sum of a geometric series.

Given $\log 2 = \cdot 30103$ $\log (1{\cdot}00695) = \cdot 00301$;
Find the sum of 100 terms of the series

$$1 + 2^{\frac{1}{100}} + 4^{\frac{1}{100}} + \&c.$$

6. Define a logarithm. Find to two decimal places the number whose logarithm to the ordinary base is $\frac{3}{8}$

Prove that

$$\log 50 < \frac{4}{5} + \frac{1}{2} \log 7 + \log 3.$$

7. Find the highest common factor of the expressions

$$x^4 - 26x^2 + 48x + 9 \text{ and } x^3 - 13x + 12.$$

8. Solve the equations

(α.) $\frac{x}{1-x} = \frac{35}{21x-1}$

(β.) $\sqrt{x^2 - 2ax + b^2} = \sqrt{(x+b)(b-a)} - \sqrt{(x-a)(b-x)}.$

(γ.) $Ax^{\frac{2}{3}} + Bx^{\frac{5}{2}} = \frac{C}{x^{\frac{1}{6}}}.$

9. Given

$$x^2 - xy + y^2 = 7 \qquad x^4 + y^4 = 82 \text{; find } x \text{ and } y.$$

10. Find three numbers in geometric proportion such that their sum shall be 19, and the sum of their squares 133.

11. Given

$x + y + z = a \quad x^2 + y^2 + z^2 = b^2 \quad x^3 + y^3 + z^3 = c^3$; find the product xyz, in terms of a, b, c.

12. Show that if a_1 a_2 a_3 &c. are the successive coefficients of x, x^2, x^3, &c. in the expansion of $(1+x)^n$ where n is a positive integer

1° $1 + a_1 + a_2 + a_3 + \&c. = 2^n$
2° $1 - 2a_1 + 3a_2 - 4a_3 + \&c. = 0$

GEOMETRY AND TRIGONOMETRY.

1. Inscribe in a circle a regular pentagon.
Show that each of the diagonals is divided by another diagonal in extreme and mean ratio.

2. A circle touches two given circles, prove

1° that the chord of contact passes through one of two fixed points.
2° that the circle so drawn cuts one of two fixed circles at right angles,

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3. If a circle be inscribed in a triangle the base is divided harmonically by the point of contact, and the point in which the chord of contact with the two sides meets the base.

4. Two sides of a triangle which is given in all but position pass through two given points; prove that the base constantly touches a fixed circle.

5. Express in other equivalent forms the following expressions

$$\cos C - \cos B \quad \sin^2 A - \sin^2 B \quad \frac{\sin A - \sin B}{\sin A + \sin B} \quad \frac{\tan A - \tan B}{\tan A + \tan B}$$

6. Prove that for *all* triangles

$$a \cos B + b \cos A = c$$

From this and the corresponding equations deduce

1° the expression for $\cos A$ in terms of the sides.
2° the relation amongst the three cosines.

7. Express $4 \sin 5A \cos 2A \cos A$ as the sum of four sines.

8. Calculate to three decimal places

$$\sin 15° \quad \cos 15° \quad \sin 18° \quad \cos 18° \quad \sin 3°$$

Given

$$\sqrt{2} = 1{\cdot}414, \quad \sqrt{3} = 1{\cdot}732, \quad \sqrt{5} = 2{\cdot}236, \quad \sqrt{6} = 2{\cdot}449.$$

9. Prove that

$$\tan \frac{\pi}{10} \tan \frac{3\pi}{10} = \frac{1}{\sqrt{5}}.$$

10. Given

$$\tan^{-1}(x+1) = 3 \tan^{-1}(x-1); \text{ find } x.$$

11. A vertical flag-staff 30 feet high upon the top of a tower 45 feet high subtends an angle of 15° to an observer whose eye is supposed to be 5 feet above the ground; find the observer's distance from the top of the tower.

How far off should an observer stand from the foot of the tower that the staff may subtend to his eye the greatest possible angle.

Second Year Students.

Mathematics.—*Examiner, Professor Purser.*

1. Apply the method of inversion to prove the following theorems:

1° If a circle constantly touch two fixed circles, it cuts any given circle coaxal with them at a constant angle.

2° A line is cut harmonically by the circle pole and polar.

2. Find the superficial area of a sphere.

Employ a similar mode of reasoning to determine that of a circular ring.

3. The planes which contain each an edge of a tetrahedron and bisect the opposite edge pass through a common point.

4. Find all the solutions of the system of equations

$$x^2 + 2myz = xw \quad y^2 + 2mzx = yw \quad z^2 + 2mxy = zw \quad w(x^2 + y^2 + z^2) = a^3.$$

5. Prove the series for the expansion of e^x.
Show that when x is positive the sum of the first n terms of the series

$$> e^x \left(1 - \frac{x^n}{\lfloor n}\right)$$

6. Prove the exponential expressions for sine and cosine.
Show that

$$1 + \frac{a}{1}\cos x + \frac{a^2}{1.2}\cos 2x + \&c. = e^{a\cos x}.\cos(a\sin x).$$

7. An observer measures from a station on the ground the angles of elevation of the bottom and top of a flagstaff upon a tower and finds them to be 32° 7′, and 37° 19′ respectively. He again measures these angles from a station 200 feet further off and finds them to be 23° 31′ and 28° 29′; calculate the height of the tower and flag-staff.

CO-ORDINATE GEOMETRY.

1. The equations of the three sides of a triangle are

of AB, $5x+3y=20$ of BC, $4x-y=-1$
of CA, $x+4y=4$;

find the co-ordinates of its vertices and the magnitudes of the angles ABC.

2. If the line AB is cut in a point P so that

$$PA : PB = m : n;$$

find the co-ordinates of P in terms of these of A and B.

Prove by the method of co-ordinates that each diagonal of a complete quadrilateral is cut harmonically by the other two.

3. Examine the conditions that the equation of the second degree represent a circle.

Taking the base of a triangle and the perpendicular from the vertex as axes, find the equation of the circumscribing circle, and that of the tangent at the vertex.

4. Given the vertical angle of a triangle in magnitude and position, and the sum of the containing sides, find by co-ordinate geometry the locus of the centre of the circumscribing circle.

SPHERICAL TRIGONOMETRY.

1. Prove the formulæ

$$\cos A = \frac{\cos a - \cos b \cos c}{\sin b \sin c}.$$

Reciprocate this formula.

2. The sides of a spherical quadrilateral are $\alpha\ \beta\ \gamma\ \delta$. All the angles except that contained by β and γ are right angles. Express β in terms of α and δ.

3. Prove the formula

$$\tan\tfrac{1}{2}(A - B) = \cot\tfrac{1}{2}C \frac{\sin\frac{1}{2}(a-b)}{\sin\frac{1}{2}(a+b)}.$$

Ex. $a=42°\ 36'$ $b=26°\ 4'$ $C=106°\ 32'$
Calculate A − B.

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4. Prove that in a right-angled triangle

$$\cos A = \tan b \cot c.$$

Given the vertical angle of a spherical triangle fixed in magnitude and position, and the sum of the tangents of the halves of the containing sides; show that the circumscribing circle passes constantly through a fixed point.

CONIC SECTIONS.

1. The tangent to a central conic makes equal angles with the focal distances.

2. If two chords of a hyperbola intersect one another the rectangles contained by their segments are proportional to the squares of the diameters parallel to them.

3. A triangle of given species is inscribed in a given triangle; find the envelope of one of its sides.

4. A sphere is inscribed in a given cone, and a variable plane touches the sphere; show that the following relation subsists between the semi-axes of the section

$$\frac{b^2 - r^2}{a} = \text{constant},$$

when r=radius of the sphere.

DIFFERENTIAL CALCULUS.

1. Define a differential coefficient. Investigate directly from the definition the differential coefficients of

$$\cos x \qquad \sqrt{x+a}.$$

2. Differentiate

$$\frac{x(2x^2+3)}{(1+x^2)^{\frac{3}{2}}} \qquad \tan^{-1}\sqrt{1+2x}$$

$$\log\frac{x-1}{x+1} + \frac{1}{\sqrt{2}}\sin^{-1}\frac{x}{\sqrt{x^2+2}}.$$

3. If P be any point on the curve whose equation is $y = x\log x$, OQ a line through the origin drawn parallel to the tangent at P meeting the ordinate PQ in Q; show that PQ=the abscissa of the point P.

4. Show that when a function passes through a maximum or minimum value its differential coefficient changes sign.

O is a given point on a circle, PQ a variable tangent to the circle, and OQ the perpendicular dropped from O on this tangent; find the position of P when the area of the triangle OQP is greatest.

Engineering Scholarships.—Second Year Students.

Natural History.—*Examiner, Dr. Cunningham.*

MINERALOGY, GEOLOGY, AND PHYSICAL GEOGRAPHY.

1. State the characters of the following minerals, and mention with what rocks they are usually found associated—Olivine, Orthoclase, Sulphur, Graphite, Calcite, Fluorite, Gypsum, Haematite.

2. State the subdivisions of the Devonian strata, and mention a few fossils which characterize each group.

3. Give a short account of the structure and geological distribution of Trilobites.

4. Mention some of the more characteristic Molluscs of the Carboniferous limestone.

5. State the distribution of the Permian strata in England.

6. State the distribution of the Red, Coralline and Mammaliferous Crags in the British Islands, and mention some of the more important fossils which occur in these strata.

7. To what causes may the phenomena of cleavage and foliation be attributed?

CHEMISTRY.—*Examiner, Dr. Andrews.*

The first nine questions of the paper used in the examination for the Second Year Medical Scholarship were used for this examination.

MEDICAL SCHOLARSHIPS.—SECOND YEAR STUDENTS.

ANATOMY AND PHYSIOLOGY.—*Examiner, Dr. Redfern.*

1. Describe the characteristic markings on each of the specimens numbered 1 to 10, and name them.

2. Describe the articular surfaces, the ligaments, synovial membranes and the movements at the radio-ulnar articulations.

3. Give a description of the splenius and complexus muscles, their attachments, relations and action.

4. Describe a living organic cell, and state what forms and functions such structures have in the human body.

5. Give an account of the microscopical and chemical characters of tendon.

6. State the arrangement of the muscular fibres of the stomach and uterus, and the nature and uses of their contractions.

NATURAL HISTORY.—*Examiner, Dr. Cunningham.*

ZOOLOGY.

1. Explain what is meant by the term "correlation of organs," and illustrate by examples.

2. In what groups of animals has the phenomenon of parthenogenesis been observed?

3. State what you know regarding the structure of a Radiolarian.

4. Describe the structure of a Ctenophoran.

5. Briefly describe the development of Taenia.

6. State the characters and geographical distribution of the Dipnoi.

7. Mention some of the more important skeletal characters of the Crocodilia.

8. Describe the condition of the hand (*manus*) and foot (*pes*) in birds.

9. Mention any noteworthy peculiarities in the dentition of Marsupials.

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Scholarship Examinations.

BOTANY.

1. Give a short account of the structure and method of growth of a starch-corpuscle.
2. What plants are specially characterized by the development of disc-bearing prosenchyma, and to what is the phenomenon regarded as due?
3. Give an account of the ordinary structure of the Dicotyledonous stem.
4. Describe some of the more important modifications of the vernation of leaves.
5. Mention some of the important ascertained facts as regards the circulation of the sap.
6. Minutely describe the structure of the flower in the genus Viola.
7. Describe the structure, affinities and geographical distribution of Sarraceniaceae.
8. Minutely describe the structure of the flower in an Orchis.
9. State some of the more important general characters of Fungi.

CHEMISTRY.—*Examiner, Dr. Andrews.*

1. What is the theoretical specific heat of carbon according to the law of Dulong and Petit?
2. Calculate the volume of aqueous vapour in 150 vol. of moist air, under a pressure of 760 mil., and at the temperature of 14°C. (Tension aqueous vapour at 14°=12 mil.)
3. Give an account of the chemical action of the different parts of the solar spectrum.
4. Calculate the densities of aqueous vapour and of hydrochloric acid gas, referred to air as unit, from the densities of their constituent elements.
5. Give an account of the hypochlorous acid and of its compounds with lime and soda.
6. What are the tests for the ferric salts?
7. Give an account of the sources from which nitre is obtained, and of its chief properties and applications.
8. Describe sulphuric anhydride (SO_3), its mode of preparation and properties.
9. What are the products of the combustion of cyanogen gas in oxygen gas.

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10. What is the general formula of the ordinary monatomic alcohols, and of the paraffins from which they may be derived by substitution?
11. What reaction takes place when metallic sodium is added in excess to absolute alcohol?
12. What is the formula of amyl alcohol, and of the acid derived from it by oxidation?
13. Describe the characteristic properties of glucose.
14. What are the tests for gelatin and for albumen?
15. What are the chief proximate constituents of blood?

THIRD YEAR STUDENTS.

ANATOMY AND PHYSIOLOGY.—*Examiner, Dr. Redfern.*

1. Name the specimens numbered 1 to 10, and describe the characters of the markings you recognise.
2. Describe carefully the articulations of the head, neck and tubercle of the sixth rib,—their ligaments and movements.

3. State the position and extent of attachment to the femur of each muscle connected with it.

4. Describe the characters of saliva, gastric juice, pancreatic juice, and bile.

5. Give an account of the composition and salts of healthy urine. How and to what extent may the urinary salts be affected by changes of diet?

PRACTICAL CHEMISTRY.—*Examiner, Dr. Andrews.*

1. How is sulphide of ammonium prepared; state its composition and properties?

2. What are the distinctive properties of oxalate of calcium?

3. Calculate the amount of magnesium in a precipitate of ammoniaco-magnesian phosphate, which on ignition, gave a residue weighing $2\frac{1}{2}$ grammes?

4. What are the distinctive properties of the uric and hippuric acids?

5. Calculate how many C.C. of carbonic acid at 0° and 760 m.m. should be disengaged in the fermentation of one gram. of glucose? (Formula of glucose $C_6 H_{12} O_6$: weight of 1 litre of CO_2 at 0°, and 760 m.m.=1.97 grams.: 1 litre=1000 C.C.)

6. What are the blow-pipe tests for lead, tin, and copper?

7. What are the distinctive properties of alcohol?

8. How would you discover the presence of blood from its chemical and spectrum reactions?

[The Candidates were also examined in Qualitative Analysis.]

FOURTH YEAR STUDENTS.

ANATOMY AND PHYSIOLOGY.—*Examiner, Dr. Redfern.*

ANATOMY.

1. Describe the method of formation and union of the ossific centres of the femur and humerus.

2. Give an account of the articulations and movements of the atlas.

3. Mention the muscles which support the body on tip-toe, and state the course of each and its insertion in the foot.

4. Give a description of the branches of the thoracic aorta.

5. Describe the choroid membrane in the eye,—its character, extent and connexions.

6. Describe the nerves of the abdominal portion of the alimentary canal, their plexuses and ganglia.

PHYSIOLOGY.

1. Describe the operation of vaso-motor nerves on tissues and organs, giving instances, and proofs.

2. State fully what grounds there are for believing that nerves may influence the actions of tissues or organs without affecting their blood-vessels directly, and give instances.

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3. What parts of the human eye are concerned in the formation of images on the retina? Describe the methods of forming and perfecting the images.

4. Mention the parts of the body in which white blood corpuscles are produced, and describe the process of their formation and their mode of introduction into the stream of blood.

5. Give a complete account of the functions of the skin.

SURGICAL ANATOMY.—*Examiner, Dr. Gordon.*

1. Describe Hey's operation for the partial removal of the Foot.

2. Describe the operation of ligaturing the External Iliac Artery, mentioning the parts successively exposed and divided.

3. Describe the abscesses met with in the Groin, their differential diagnosis, their sources, prognosis and treatment.

4. Describe the various forms of Inguinal Hernia, their coverings and the seat of stricture.

MEDICINE.—*Examiner, Dr. Cuming.*

1. Enumerate the causes of active Hyperaemia.

2. Give an account of the phenomena of Catarrhal Inflammation of a mucous membrane.

3. Describe the pathological changes which are met with in the brain, in cases of Cerebral Hæmorrhage.

4. Give the percussion signs met with in acute Pleuritis.

5. Enumerate and explain the pressure symptoms met with in cases of Thoracic Aneurism.

6. Mention the different forms of Croup and state their appropriate treatment.

7. What head-symptoms are met with in Typhus Fever and how are they to be treated?

MIDWIFERY, AND DISEASES OF WOMEN AND CHILDREN.—*Examiner, Robert Foster Dill,* M.D.

1. Give a concise historical account of the midwifery forceps, including the most important improvements which this instrument has undergone, and the names of the authors.

2. What is secale cornutum? Name its different preparations and the dose of each. State when (in obstetric practice) this drug is indicated and contra-indicated.

3. What may be the determining cause of parturition?

4. What are the alternatives in arm presentation where turning proves impossible? Describe the operation which has been termed "Spondylotomy."

5. What is the nature of a case requiring the operation termed "Induction of Premature Labour"? What are the means of operating?

6. What is the amount of maternal mortality observed in cases of turning for placenta prævia?

7. What is the most common source of retention of the placenta? What would be your treatment?

8. What are the duties of the accoucheur towards the newly-born child? *Appendix, No. 8.*

9. By whom and in what year was Symphyseotomy first performed and with what results? State the objections to this operation. Scholarship Examinations.

10. Describe the origin and course of the nerves with which the uterus is supplied, and explain how the uterine contractions are influenced and guided, and the necessity that exists for intervals from labour pains.

11. In furnishing (1) your obstetric case, and (2) your gynækological case, name the instruments and medicines necessary for each, in the order in which they are most frequently introduced in practice.

MEDICAL JURISPRUDENCE.—*Examiner, Professor Hodges,* M.D.

1. What are the symptoms which would lead you to conclude that poison had been taken?

2. Describe the processes required for the detection of adulteration of sweet milk.

3. How are burns received after death to be distinguished from those produced during life?

4. Can a cicatrix once formed be removed by time so as to be no longer recognizable?

5. What is Fleitmann's test for arsenic?

6. How are weapons to be examined for blood-stains?

7. State the special antidotes for the following poisons: arsenious acid, corrosive sublimate, carbolic acid, acetate of lead.

8. How is the presence of lead in water detected and the quantity determined?

LAW SCHOLARSHIPS.—FIRST YEAR STUDENTS.

REAL PROPERTY.—*Examiner, Professor Molyneux.*

1. What is the true ground upon which a limitation to the unborn child of an unborn person is held to be void? And state how the objection is demonstrated.

2. Why was a recovery suffered by legal tenant in tail joined by an equitable prior estate, inoperative to convert the tenancy in tail into an absolute estate in fee-simple before the 3rd and 4th Will. IV., English, or 4th and 5th Irish.

3. What is the reason assigned for the ancient Common Law conceding an exceptional right to coparceners to enforce a partition against their coparceners, which it denied to other joint owners.

4. What relation must exist between the tenant of a subordinate estate and the owner of a superior estate, to enable the former to make a valid legal surrender to the latter.

5. Explain why it is that the position assigned to successors by the new rule which admits the half-blood would have resulted as a necessary consequence from a previous canon, also for the first time introduced by the Statute of Inheritance, without any such illustration as given in the Act.

6. State in what cases are pure equitable estates created by a conveyance to trustees, notwithstanding the Statute of Uses.

7. Give an instance in which, on the death of a female tenant in tail, leaving issue a son and daughter, the husband would *not* be entitled as tenant by the curtesy.

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8. Give an instance of a surrender by operation of law.

9. Give an instance of an executory devise.

10. A, seized in fee simple conveys by a lease and release directly to B and his heirs, and if he should die under the age of 21 years the land should belong to C. D. What estate (if any) does each of those persons take under the instrument?

11. What is the difference between a tenancy at will and a tenancy at sufferance?

12. State the difference between rent charge and rent service.

13. What is the difference between a shifting use and a remainder.

14. What is a quasi estate tail? And what is the mode of barring the entail, as distinguished from that prescribed by the Statute for barring an ordinary estate tail?

15. What was the mode of authenticating a deed conveying lands before the Statute of Frauds?

16. Why does a deed of bargain and sale of lands to one person to the use of another fail to pass a legal estate to that other?

17. State what contingent remainders are still destructible.

18. In what instance does a lease operate by estoppel?

JURISPRUDENCE.—*Examiner, Professor Leslie.*

1. State Austin's definition of General Jurisprudence, and give examples of the nature of the principles and distinctions of which it treats.

2. Explain the distinction between the Law of Persons and the Law of Things.

3. Explain the distinction between *jura in rem* and *jura in personam*, giving examples, and also stating the equivalent terms in Roman Law for the two classes of rights.

4. How does Austin define—Positive Law; the Science of Legislation; Monarchy; Limited Monarchy; Aristocracy; Democracy; Constitutional Law?

5. Analyse carefully the term Sovereignty; and explain the proposition that "Rights against a Sovereign are only *quasi* legal rights." Does this proposition hold good in respect of the King of England or not, and why?

6. What was the Roman *Cessio in Jure?* What difference does Sir Henry Maine point out between it, and some analogous expedients formerly existing in English Law.

7. Explain carefully the reason given by Sir H. Maine for the different proportions of civil and criminal law in ancient and mature law, respectively. Add his explanation of the pecular sense in which he employs the term criminal law in reference to this subject.

8. Explain carefully Sir H. Maine's proposition that "the history of Contract (in Roman Law) gives a complete account of the march of ideas from one great landmark of Jurisprudence to another."

9. Explain, with examples, the proposition that "an ancient legal conception corresponds not to one, but to several modern conceptions."

10. Compare English with Roman Equity.

11. How is Grotius' theory of International Law connected with a change which had taken place in the conception of Sovereignty, according to Sir H. Maine?

12. Point out some of the important differences between ancient and modern ideas on the subject of Wills and Succession discussed by Sir H. Maine.

Second Year Students.

Equity.—*Examiner, Professor Molyneux.*

1. Enumerate the several classes of personal property.
2. Under what circumstances is a legacy bequeathed to the creditor of the testator to be deemed a satisfaction of the debt?
3. In what respect did the rights of the father of an intestate operate in relation to real and personal estate before the Inheritance Act?
4. What kindred are entitled to the personal estate of an intestate? Distinguish those who are entitled per capita and per stirpes, respectively.
5. In what respect do the *Irish* Registry Acts give greater security to purchasers than the *English* local Registry Acts?
6. What qualification of the doctrine of laches in relation to the omission to renew leases for lives under a covenant for perpetual renewal, was provided by the old Irish Tenantry Act?
7. After what lapse of time does the Statute of Limitations bar the claim of a tenant at will?
8. What tribunal does the Statute entrust with the creation of *land debentures?* And what are the circumstances of the estate out of which such debentures may be created?
9. What is the necessary structure of the deed under which springing uses may be created?
10. In what qualified sense must the expression *wrong* be understood, in the maxim "*Equity will not suffer a wrong without a remedy*"?
11. In what respect do the Irish Registry Acts contravene the maxim of Equity "*Qui prior est tempore potior est jure*"?
12. To what classes of persons intended to derive under defective appointment, do Courts of Equity grant relief?
13. What species of *Power* will be executed by the Court of Chancery, although no attempt at appointment had been made?
14. What instances of *suppressio veri* alone furnish defences in Insurance cases?
15. To what degree must influence extend to invalidate acts on the ground of fraud?
16. How long is the influence of a guardian supposed to continue in the contemplation of a Court of Equity, as affecting the dealings between guardian and ward?
17. Under what circumstances will a purchase by a solicitor from his client be upheld in Equity?
18. Under what circumstances will a Court of Equity exercise its jurisdiction by giving effect to parol contracts notwithstanding the Statute of Frauds, and although there has not been a part-performance?
19. On what general principle rested the doctrine of Courts of Equity as to illusory shares under appointments, which has been abolished by Statute?

Jurisprudence and Civil Law.—*Examiner, Professor Leslie.*

1. Examine the definition of Law given by Bentham and Austin, in relation to the institutions of early society, and of native Asiatic States.
2. Point out analogies between English, German, Hindoo, Roman, and ancient Irish legal remedies.
3. Trace the different origins, according to Sir H. Maine, of Primogeniture and Borough English.

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Scholarship Examinations.

4. Explain carefully the reasons given by Sir H. Maine for the different proportions of civil and criminal law in early and mature law, respectively. Explain at the same time the peculiar sense in which Sir H. Maine employs the term Criminal Law in discussing this subject.

5. Give a classification of the main divisions and subdivisions of Roman Law as condensed in the Institutes.

6. Compare Roman with English Law in respect to succession, testamentary and intestate.

7. Comment on the place given to Universities of Rights in the classification of law adopted in the Institutes, stating any reasons which occur to you both for and against the classification in this particular instance.

8. What were the conditions essential to the acquisition of *dominium* by *usucapio*?

9. Write a concise but clear account of Servitudes, giving the main classes according to the Institutes.

10. Explain, with examples, the proposition that "an ancient legal conception corresponds not to one but to several modern conceptions."

11. Point out some of the important differences between ancient and modern ideas respecting Wills and Succession, discussed by Sir H. Maine.

12. Explain the proposition that "the history of Contract (in Roman Law) gives a complete account of the march of ideas from one great land mark of Jurisprudence to another."

Third Year Students.

Common Law.—*Examiner, Professor Molyneux.*

1. Bill of exchange accepted by a Railway Company, and indorsed by drawer, Bill dishonoured, indorsee became bankrupt, and the assignee of the chose in action under a sale by the authority of the Court, sued the Company at law; what are his rights in relation to the Bill as against the Company?

2. A, B and C, partners in trade, contracted with X: C dies, and D becomes his executor—contract broken by X. Who are to be the plaintiffs in an action against X?

3. When a fee-farm grant, under the Leasehold Conversion Act, is sought by a tenant for lives with perpetual renewal; what two classes of persons are empowered by that Statute to make the requisite grant, so as to create a perfect title in the lessee, who would not have been competent to grant a renewal?

4. What were the infirmities incident to titles derived by purchasers under the Court of Chancery?

5. What link in a title derived from a sale under the Bankrupt Court, as constituted by the 6 and 7 Will. IV., is to be searched for in the Office for the Registration of Deeds?

6. What is the difference between the acts of a lunatic and those of an infant, as affecting their validity?

7. What restraint does Equity place upon the discretion conferred upon parents in the distribution of property among their children, under a power of appointment?

8. As Courts of Equity have no direct jurisdiction *in rem*, by what means do they exercise authority in dealing with property?

9. Where a party to a valid contract has reserved the power of annulling it under specified contingencies; what circumstances would give the Court jurisdiction to grant an injunction to restrain him from exercising such power?

10. Where a contract (not within the Statute of Frauds) is made in writing, and the parties have partially varied it *by parol;* what is the agreement upon which the party is to bring his action? Again, if the contract were within the Statute of Frauds, and a like parol variation made, what would be the rights of the parties in such last case?

11. Where an action is brought in which several rights are included, and the suit being contested evidence is not applied to all the claims; what is the effect of a general judgment in such action, as affecting the rights of the plaintiff?

12. If an alteration is made in a contract in writing by one of the parties, without the consent of the other, what effect has that alteration upon the rights of each of the several parties?

13. Under what circumstances is delivery to a carrier delivery to the party?

14. Contract by parol for the sale of goods above £10, a delivery to a carrier named by the vendee, what additional circumstance would be essential to satisfy the Statute of Frauds?

15. A purchases scrip of the X Railway, from B; and also purchases scrip of the P projected Railway from B. The former scrip turns out to have been forged without the knowledge of B: the projected Railway was afterwards abandoned. What are the rights of A against B?

JURISPRUDENCE AND CIVIL LAW.—*Examiner, Professor Leslie.*

1. Write a concise account of the Roman Law of Servitudes.

2. Write a concise account of the Roman Law of Usucapio.

3. Write a concise account of the latest Roman Law with respect to intestate succession.

4. Give an account of the law respecting the disinheritance of children (*de exheredatione liberorum*) prior to and after Justinian's reforms.

5. State the main divisions and subdivisions of Law, according to the Institutes of Justinian.

6. Criticise carefully the classification of Law referred to in the foregoing question, stating arguments for and against some of the divisions and subdivisions.

7. Criticise in relation to the institutions of early society and of native Asiatic States, the definition of Law adopted by the Analytical Jurists.

8. State some of the principal tests by which bodies of archaic and mature law are distinguished from each other.

9. Point out analogies between English, German, Hindoo, Roman and ancient Irish legal remedies.

10. Point out some of the most fundamental differences between the Roman Law as it stood after Justinian's reforms, and modern English Law.

11. Point out the changes which you think of chief importance in Roman Law between the Twelve Tables and the accession of Justinian.

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Scholarship Examination.

Fourth Year Students.

English Law.—*Examiner, Professor Molyneux.*

1. State what was the general principle upon which Courts of Equity gave relief to tenants who had failed to pay rent pursuant to the provisions of their lease.

What was that relief?

To what extent has that relief been adopted by the Acts regulating ejectment for non-payment of rent?

In what respects did those Acts confer a legal status to the tenant which the Court of Equity was incompetent to confer?

2. Where a document is alleged to be in the possession of the opposite party, what preliminary proofs are necessary to the admission of secondary evidence of its contents?

3. What provision was made by the Statute of Wills (1 Vict.) in reference to *Powers?* And for what class of Powers was it so expedient to provide?

4. From the nature of a power in *gross* as contradistinguished from a power *appendant*, why is one from its nature capable of suspension or extinguishment by the act of the donee, and not the other?

5. How does the persumption differ where a tenant in tail or a tenant for life pays off a charge on the inheritance?

6. Devise to A after the death of B., How are the rights of B affected by the fact that A is or is not the heir-at-law of the testator? State the reason.

7. Lease for 3 lives or 31 years, whichever shall last longest; what is the tenure of the tenant in such case?

8. In what respect do specific and demonstrative legacies differ?

9. What is the construction of a limitation to A and his issue in a deed?

10. What is the principle upon which ecclesiastical leases are converted into fee-simple under the Statute passed for such purpose, and in what particular (as affecting the reversioners) does such conversion differ from that provided by the Act for conversion of leases for lives with perpetual renewal?

11. What is the leading feature of the difference between existing systems of pleading at law and in equity?

12. In what limited sense is the expression (inaccurately described as) fusion of law and equity to be understood?

13. What is the analogy between ordinary limitations and executory devises in regard to the policy which secures the power of alienation of real estate after a given period? How is that object attained in each instance respectively?

14. What is the position and extent of jurisdiction of the Court of Queen's Bench in our system of criminal judicature? And what are its other judicial functions, exclusive of its jurisdiction in civil actions?

15. State the several stages of proceeding in criminal proceedings, from the commencement to judgment. State also the limit and extent of the opportunity of having the acts of the Court reviewed on error; compared with the means afforded to the suitor in civil actions.

16. What is the challenge to the array, and what the challenge to the poll in regard to juries? And what is the course of proceeding by which the decision of the Court can be reviewed?

17. In what class of cases is parol evidence admissible in the interpretation of wills?

18. Is the *onus probandi* necessarily thrown upon the affirmative of the issue as pleaded; and if not, by what other rule is it to be ascertained?

19. Alteration or interlineation in a will; what is the presumption as to whether it had been made before or after its execution? What is the presumption in a deed under like circumstances?

20. What is the difference between the act of a constable arresting a person suspected of having committed a felony, and a private person arresting a party so suspected, as regards their respective justification?

21. Where an action is brought against the owner of a dog, who, it is alleged, has killed the plaintiff's sheep, what proof is sufficient to sustain the action?

JURISPRUDENCE, CONSTITUTIONAL AND INTERNATIONAL LAW.
Examiner, Professor Leslie.

1. Trace the historical connexion between Roman Law and Modern International Law, giving examples of doctrines of the latter derived from the former.

2. State the principles of International Law relative to Contraband of War.

3. State the principles of International Law relative to Blockade.

4. State the principles relative to the jurisdiction over a public and a private British ship respectively, on the high seas, and in the waters of a foreign State.

5. A ship and its cargo in harbour, and also goods on shore, belonging to a French merchant, were captured during the war at a French port by the Germans, and sold immediately to a citizen of a third country. After the war, the French merchant reclaimed all the property. What principles do you apply to the case?

6. A British subject domiciled in France, and having movable and immovable property in both France and England, made a will in comformity with French law, but invalid according to English testamentary law, by which he left all the property to a natural son in France. What principles do you apply to the disposition of the property?

7. State and criticise Austin's chief reasons for objecting to the generally adopted division of Law into public and private.

8. State the strongest arguments you can for and against the propositions that the English Constitution was an Absolute Monarchy from the Norman Conquest to Magna Charta, and that it was so under Henry VIII.

9. State the chief provisions of the Habeas Corpus Act.

10. State the substance of Hallam's discussion of the intention and effect of the Statute of Fines passed in the reign of Henry VII.

11. Give the main divisions of Law as classed in Justinian's Institutes, and by Austin, respectively.

12. Explain the distinction drawn by Austin between crimes and civil injuries. Is this distinction applicable to early law or not, and why?

SENIOR SCHOLARSHIPS.

HISTORY.—*Examiner, Professor Yonge,* M.A., Oxon.

1. Give a list of the Sovereigns of France and England between the years 1590—1820, mentioning whatever English Sovereigns had any connexion, either by blood, marriage, or treaty, with their contemporary Sovereign in France,

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2. Give a summary of the arguments used on both sides by both the Counsel and the Judges on the claim of the Crown to enforce the payment of Shipmoney.

3. What were the battles of Arques; Fontaine Française; Castel Naudary; La Marfée; Nordlingen; Valmy; Fleurus; Marengo; Austerlitz; Friedland; Essling; Leipsic?

4. Give a brief account of the administration, objects, and characters of those whom you esteem the greatest Prime Ministers in England between 1690—1820.

5. What Cardinals were Prime Ministers of France in the 17th and 18th centuries? Describe their characters; and mention the principal events which marked the administration of each.

6. What were the objects and most important articles of the Treaties of Dover; Ryswick; Utrecht; the Hague (1716); Versailles (1763); Paris (1783); Amiens.

7. What connexion do we find between literature and politics in either England or France in the 18th century.

8. What were the principal grievances under which the French laboured in the latter part of the 18th century? How far were the proposed reforms of any of the Ministers of Louis XVI. calculated to remove them?

9. What were the constitutional principles which were involved in the proceedings against Wilkes, and what were some of the most important results of those proceedings?

10. Mention some of the leading incidents in the political career of Duval D'Espreménil.

Give an account of the origin and rise of the British and of the French dominion in India; and of the contest (with its results) between the two nations for supremacy in that country.

CHEMISTRY.—*Examiner, Dr. Andrews.*

1. How would you determine the expansion of a gas from heat, (*a*) by the method of constant pressure, (*b*) by the method of constant volume? State the law discovered by Gay Lussac, and the deviations from it.

2. Describe the methods of Gay Lussac and of Dumas for determining the density of a vapour.

3. How would you analyze an alloy of tin and copper?

4. Define isomorphism, and illustrate its meaning by examples.

5. What are the distinctive properties of carbonic acid above and below the critical temperature of 30°?

6. Describe the three varieties of phosphoric acid, and their respective reactions with the salts of silver.

7. Give an account of the fluoride of silicon and of the reaction which occurs when it comes into contact with water.

8. Describe the diatomic alcohol glycol, its relations to the hydrocarbons, and the acids derived from it by oxidation.

9. State the general formula of the ketones, and give an account of the ketone derived from acetic acid.

[The Candidates were also examined in Qualitative Analysis.]

NATURAL HISTORY.—*Examiner, Dr. Cunningham.*

ZOOLOGY.

1. Describe the general structure of an unimpregnated ovum, and mention some of the more important changes which ensue on fertilization.

2. Give the names and limits of Sclater's Zoo-geographic regions, and give examples of Mammals and Birds characteristic of each region.

3. Give an account of the structure and development of a Gregarina.

4. Give an outline of the classification of the Actinozoa.

5. Describe the general structure of a Gephyrean.

6. Give a short description of the Osteology of the skull in a Teleostean Fish.

7. Give a list of those characters in which Reptiles resemble, and those in which they differ from Birds.

8. Give an account of the principal modifications of the dentition in Proboscidia.

9. State the character of the placentation in Prosimiae.

BOTANY.

1. In what plants has the presence of nuclei in the cells not been recognised?

2. Give some account of the structure and functions of chlorophyll corpuscles. Mention instances of plants which are destitute of chlorophyll.

3. Briefly describe the structure and mode of development of roots in Monocotyledons and Dicotyledons.

4. Describe the principal forms of achenial fruits.

5. Mention some of the more important points in the structure of Cycadaceae.

6. State the characters and affinities of Crassulaceae.

7. State the general character of Primulaceae, and mention any peculiarities exhibited by individual genera.

8. Refer to their natural orders the following genera of British Plants—Arbutus, Asperula, Betula, Cardamine, Chelidonium, Cynosurus, Dianthus, Erodium, Fraxinus, Hyoscyamus, Listera, Nasturtium, Orobanche, Phyteuma, Pyrus, Ribes, Rumex, Stellaria, Trollius, Ulex, Viscum.

METAPHYSICS.—*Examiner, Professor Park,* M.A.

1. Why is it vain to expect that Metaphysics should be as rapidly and steadily progressive as the Mathematical and Physical Sciences?

2. "The drawing of too hard a line between Sense and Intelligence has been the fruitful scource of confusions in philosophy"?

3. "Does it follow that because there is an *a priori* space as a form of thought, we may not have an empirical knowledge of extension as an element of existence"?

4. "When Kant says that all objects of the senses are only phenomena (not things *per se*), it is a false inference to say they are illusions"?

5. Examine this criticism of Berkeley:—He asserts the existence of spiritual substances, though he admits we have no ideas of them, and he denies the existence of material substance, because we have no idea of it.

6. State clearly and concisely the distinction drawn by Descartes between mind and matter, and his doctrine regarding the mode in which we apprehend each. Compare with the Cartesian theories of these points those of Locke and of Leibniz.

7. Explain:—"Deliberation and investigation are like the hunting

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of a hound; he moves and sniffs about by his own activity, but the scent he finds is not laid, nor the trail he follows drawn by himself."

8. "A doctrine of Personality is a pre-requisite for a doctrine of Personal Identity"?

9. What is meant by Philosophical Necessity? Certain ambiguities have perplexed the adherents of this doctrine?

Examine:—"We *in thought* never escape determination and necessity. It will be observed, that I do not consider this inability to the *notion* any disproof of the *fact* of Free Will."

10. Do you accept Mr. Dallas' view, that "Mill's philosophy is a re-assertion upon revised grounds of Hume's"?

POLITICAL ECONOMY.—*Examiner, Professor Leslie.*

1. Trace the probable effect of the progress of society on profits and rent respectively, giving your reasons.

2. Adam Smith says: "In agriculture nature works along with man. The rent of the landlord may be considered as the produce of the powers of nature." Criticize this.

3. Locke and Montesquieu thought that the increase in the quantity of silver and gold, after the discovery of America, was the cause of the fall in the rate of interest. Give their reason, and criticize it; explaining at the same time the lower rate of interest in the 17th century than in the middle ages.

4. Criticize the doctrine that a paper currency can never be issued to excess so long as it represents property.

5. How does a loan to a foreign country tend to affect the rate of exchange, and why?

6. State concisely the strongest argument you can for and against the doctrine of an aggregate wages fund.

7. Give a brief account of the Economic System of Quesnay, generally called the Physiocratic System, and point out its principal errors.

8. Give a short account of the Mercantile System as described in the fourth book of the Wealth of Nations.

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1. Explain what Mr. Mill means by the Statics and the Dynamics of Political Economy respectively, and give examples of problems and propositions in each.

2. How do you account for the great excess of imports over exports in the trade of the United Kingdom and of Norway respectively; and for the frequent excess of exports over imports in the trade of Russia?

3. What is the ordinary limit to the premium on foreign bills of exchange, and why? Could this premium be exceeded under peculiar circumstances?

4. Explain Mr. Mill's doctrine that taxes on imports may fall partly or wholly on foreigners, but do not fall on the foreign producers of the articles so taxed.

5. Can an inconvertible currency be so regulated as to vary in value exactly as a convertible one, and if so, how?

6. How does an unfavourable exchange affect imports and exports respectively, and why?

7. If a tax be imposed on the production of all commodities in proportion to the value produced, on whom will the tax fall, and why? Will the tax affect prices or not, and why?

8. State concisely the strongest arguments you can for and against the doctrine of an average rate of profits.

General Class Examination at the End of the Session 1875–76.

First Year Students.

English Language and Literature.—*Examiner, Professor Yonge,* M.A., Oxon.

1. Trace the origin of the English Language; enumerating the different languages from which it has received contributions; and the traces which each have left upon it; and the circumstances which gave each its influence.

2. What is the origin and meaning of the term "Aryan"? And to what peoples and languages is it applied?

3. Dr. Latham raises the question how far English nouns and verbs can be said to have inflections. Examine the question and his arguments; giving your own view of the matter.

4. The language of these islands has been divided by philologers into Anglo-Saxon, Semi-Saxon, Early English, Middle English, and Modern English. What are the periods usually fixed for each? And what historical events may be supposed to have influenced or affected these different transactions or gradations?

5. Explain the difference between *shall* and *will;* and the proper mode of using each form.

6. Give a brief account of the state of the drama in England before the time of Shakespeare.

7. What principles and rules does Shakespeare appear to have laid down for himself in the composition of his historical plays?

8. On what authorities does Shakespeare rely for the play of Richard II.? And how far does his character of the King agree with that usually adopted by historians?

9. Mention some of the most remarkable anachronisms which occur in the play of Richard II.

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1. Write notes on the following passages :—

> High-stomach'd are they both and full of ire.
>
> Shall I seem crestfall'n in my father's sight;
> Or with pale beggar-fear impeach my height?
>
> While you have fed upon my signories,
> Dispark'd my parks, and fell'd my forest woods;
> From my own windows torn my household coat,
> Raz'd out my imprese, leaving me no sign
> Save men's opinion, and my living blood,
> To show the world I am a gentleman.
>
> Or I'll be buried in the King's highway,
> Some way of common trade, where subjects' feet
> May hourly trample on their sovereign's head.

2. Who is the King portrayed in the Lady of the Lake?

3. Describe the custom spoken of in this poem as the sending of the Fiery Cross; quoting, if possible, the whole or a portion of the passage.

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General Class Examination.

4. Describe what you conceive to be the principal characteristics of Scott's poetry—comparing him, if you like, with some other English poet.

5. Give a brief sketch of the growth of the English power in India before Clive's time.

6. Describe and comment on Clive's behaviour at Arcot—his treatment of Omichund—and his last visit to India.

Second Year Students.

Logic.—*Examiner, Professor Park.*

1. Briefly explain:—

"Strike *form's* first way in *matter* rude and bare."

"Men's judgments are mostly wiser than the reasons they are able to give for their judgments."

2. Define a truth, and state what kinds of truth lie outside the sphere of Formal Logic.

3. Explain the distinction between intuitive and symbolical cognitions. How is it that words are "fortresses of thought," and often occasions of incorrect thought?

4. How are logical divisions obtained? How are they tested? What is a cross division?

5. Indicate by the technical symbols the quantity and the quality of the following propositions:—

"All primary forces are attractive."

"All vital actions come under the law of habit, and none but vital actions do."

"The best part of every man's education is that which he gives himself."

"Only ungulate animals have horns."

"Mere readers are very often the most idle of human beings."

"Most water-breathing vegetables are flowerless."

6. Explain or examine:—

"The logical contradictory denies much less than the logical contrary."

"Two conflicting judgments as to what ought to be done cannot both be true."

"The pure logical converse of 'If A is B, C is D,' is 'In at least some case where C is D, A is B,' or 'If C is D, A may be B.'"

"The pure logical obverse of 'If A is B, C is D,' is 'If A is B, C is not other than D.'"

7. "The logical value of two affirmative premisses in the second figure is absolute zero"?

An E major premiss is highly efficient?

An O minor premiss is seldom admissible?

8. In Conjunctive inferences "the Modus Ponens and Modus Tollens correspond to the modes Barbara and Camestres respectively"?

9. State Mr. Mill's analysis of the major premiss of a perfect syllogism, and his doctrine of the relation between that premiss and the conclusion.

Examine Archbishop Whately's reply :—"Some have denied that the conclusion is inferred from the universal premiss. But then they acknowledge that the truth of that premiss is an indispensable *condition* of such inference."

10. Investigate the formal nature of these inferences :—

"The belief in no lie can really benefit the world. Well, then, does it not follow conversely, that if a belief really benefits the world, it cannot be a lie?"

"Virtue of the most perfect kind always affords pleasure to him who practises it, and unless it does this, it cannot be of the highest kind."

"Without intellect there can be no principle, and without principle there can be no security for virtue."

"The British Government is not likely to be overthrown, for intelligent and disinterested witnesses assert that it earnestly seeks the good of its subjects."

11. "Probable proofs, by being added, not only increase the evidence, but multiply it"?

12. Show that the Method of Difference implies "the law of the Uniformity of Nature" as well as "the law of Universal Causation."

13. "Why is prussic acid rightly said to be the cause of death, while life is not so, when both alike precede, and both precede the same event?"

14. Explain the nature and the importance of Verification.

15. What methods underlie these inferences :—

"Because it froze last night, therefore the pools are covered with ice."

During the retreat of the ten thousand a cutting north wind blew in the faces of the soldiers; sacrifices were offered to Boreas, and the severity of the wind immediately ceased, which seemed a proof of the god's causation.

"Brewster accidentally took an impression from a piece of mother-of-pearl in a cement of resin and bees' wax, and finding the colours repeated upon the surface of the wax, proceeded to take other impressions in balsam, fusible metal, lead, gum arabic, &c., and always found the iridescent colours the same. He thus proved that the chemical nature is wholly a matter of indifference, and the form of the surface is the condition of such colours."

MINERALOGY, GEOLOGY, AND PHYSICAL GEOGRAPHY.—*Examiner, Dr. Cunningham.*

1. State the crystalline system, chemical composition, and usual method of occurrence of the following minerals :—Diamond, Graphite, Common Amethyst, Sapphire, Emerald, and Topaz.

2. Give a short account of the principal ores of Zinc and Lead.

3. Give an outline of the classification of Volcanic Rocks adopted in the text-book.

4. Give a short description of the Lower Miocene Strata of the British Islands.

5. State the character, distribution, and more important organic remains of the Wealden Strata.

Appendix, No. 8.

General Class Examination.

6. In what Strata do the following groups of animals first make their appearance :—Lamellibranchiata, Dibranchiate and Tetrabranchiate Cephalopods, Air-breathing Gasteropoda, Insects, Macrurous and Brachyurous Decapoda, Ganoid and Teleostean Fishes, Ophidia, Crocodilia, Quadrumana?

7. Give a short account of the Rhaetic Strata and their fossils.

8. Give an outline of the distribution of saline lakes.

9. Mention some of the principal facts as regards the structure, movements, and distribution of Glaciers.

ZOOLOGY.—*Examiner, Dr. Cunningham.*

1. Explain the terms Mimicry and Pseudomorphism, and illustrate them by examples.

2. Give an account of the general structure of Echinoidea.

3. Give a sketch of the structure and classification of Annelida.

4. State some of the more distinguishing marks of the Cirripedia.

5. Describe the exo-skeleton of Insecta.

6. Give a short account of the development of the brain in Vertebrata.

7. Briefly indicate the more important characters of the Ganoidei, and give the names and geographical distribution of the recent genera.

8. State the characters of Crocodilia. Mention three different positions assumed by the internal nares.

9. Give a short description of the appendicular skeleton of Birds.

10. State the characters and distribution of Monotremata.

FIRST YEAR LAW STUDENTS.

JURISPRUDENCE.—*Examiner, Professor Leslie.*

1. Give some account of the following writers on English Law :—Glanvill, Bracton, Fleta, Britton, Andrew Horn, Chief Justice Fortescue.

2. Give some account of the methods followed in the Science of Law by Austin, Maine, and Bentham, respectively.

3. State the main divisions of Law according to Justinian's Institutes, and add Austin's criticism.

4. Examine the proposition that there is a natural right of testation or bequest.

5. Point out some of the chief differences between ancient and modern ideas respecting testamentary succession, and succession *ab intestato*, respectively.

6. Give examples of the process of gradual specialization of legal ideas and terms, of which Sir H. Maine speaks.

7. Features of both archaic and advanced law appear in medieval law. Give examples, and explain the appearance of both in the medieval systems.

8. What are, according to Bentham, the principles which ought to determine the number, locality, and jurisdiction of courts of justice?

9. Compare English with Roman Equity.

10. Compare Archaic law with modern International law.

11. Explain the different proportions of penal and civil law in early and mature legal systems, respectively.

12. Explain fully the formula that the movement of progressive societies has been one from Status to Contract.

Second Year Law Students.

Jurisprudence and Civil Law.—*Examiner, Professor Leslie.*

1. State the main divisions in the Institutes of Law generally, and of the Law of Things in particular.
2. Is any provision made in Roman law for the class of rights which Blackstone has called absolute rights of persons?
3. Give a brief account of the law of *Usucapio.*
4. Explain the arrangement of the Pandects and Institutes respectively.
5. Define *dominium, servitude, possessio, obligatio.*
6. Give the main divisions of Persons in the Institutes.
7. Show how feudalism was influenced by Roman law.
8. Give an account of the changes made by Justinian in respect of the conveyance of property, of usucapio, and of the rights of cognates.
9. Explain the terms—*arrogatio, pignus, hypotheca, sui heredes, bona vacantia, quarta Falcidia.*
10. Explain the origin of Equity in the Roman and the English systems respectively.

Third Year Arts Students.

Political Economy.—*Examiner, Professor Leslie.*

1. Explain and prove the proposition that a demand for commodities is not equivalent to a demand for labour.
2. What economic principle should be taken into account by a manufacturer who is considering the policy of enlarging his factory, and why?
3. What considerations should be taken into account by a person who is deliberating whether he should buy building ground, pasture land, or agricultural land in a new colony?
4. A invests £10,000 in the funds; B invests £10,000 in a business in which he engages. How much more ought B to make than A, and how much more can he prudently spend per annum?
5. Explain the influence of an "unfavourable exchange" on the exportation of commodities from England to foreign countries.
6. Explain the effect of hoarding, railways, and instruments of credit, respectively, on the amount of metallic currency requisite for the trade of a country in proportion to its wealth.
7. Explain the different plans on which an Income Tax may be assessed, and the arguments for and against each.
8. Explain the connexion between the theory of population and the theory of agricultural rent.
9. Explain the connexion between the theory of rent and the theory of the equality of profits.
10. State the two cases in which, according to Mr. Mill, a tax on commodities may fall on producers. Are there any other cases, overlooked by Mr. Mill?
11. Explain and criticize Mr. Mill's doctrine, that profit depends on the cost of labour.
12. Write a short article on Strikes, applying the economic principles which you think appropriate in considering their policy or impolicy.

Appendix, No. 8.

General Class Examination.

First Year Students.

English Law.—*Examiner, Professor M'Kane.*

Law of Property.

1. Is there any, and if so, what difference in the barring of a regular estate tail, and an estate in quasi entail in leaseholds for lives renewable for ever?

2. Is there any, and if so, what difference between the estate created by a limitation to A B and his issue in a deed, and the same words in a will?

3. What changes were made in the law of Dower by the 3 & 4 Wm. IV., c. 105? How was Dower barred previously to this Act, and what is the present mode of barring it?

4. State the substance of the Statute of Uses, and the objects for which it was passed. How was it that the Statute failed to attain those objects?

5. Explain the difference in the mode of operation between a conveyance of freehold lands by way of lease and release, and a conveyance of freehold lands by way of bargain and sale.

6. What is the effect of a limitation in which the estate of the cestui que use is greater than that of the grantee to uses? For example, if land be conveyed to A for life to the use of B for life, in tail or in fee; what estate does B take?

7. Trace the progress of the power of testamentary alienation over freehold lands.

8. What alterations were there made by the Wills Act (1 Vic., c. 26); (1) as to the execution and attestation of wills; (2) as to operation of wills on real estate acquired after the date of the will?

9. Explain the doctrine of *Cy pres* as applied to devises by will.

10. State the rule in Shelley's case, and illustrate its operation by examples. Is it a rule of law or of construction?

11. What is the difference between rent service, rent charge and rent seck?

12. Give definitions of a vested remainder, a contingent remainder, an executory devise, a springing and a shifting use. State their peculiar incidents, and how they differ from each other.

13. What are the limits respectively to the creation of contingent remainders, of executory interests, and to the accumulation of income?

14. What are the usual provisions contained in a mortgage in fee of freehold houses? What are the statutory powers conferred on the mortgagee by an Act of the present reign?

15. What covenants for title must be given by a vendor in selling a fee-simple? And how do the covenants entered into by a mortgagor in mortgaging, and a trustee in selling, differ from those entered into by the beneficial owner in selling?

16. In a devise in the form following:—"I devise my estate at Blackacre to my son A, and as to all my personal estate, I give the same to my son B." Suppose Blackacre to be subject to a mortgage for £5,000, which son has to bear the mortgage debt? Has any change been recently made in the law on this subject? State any special circumstances that may govern the answer.

17. A man dies intestate, leaving a widow (but no issue), an uncle, a mother, a brother of the half blood, and two children of a deceased sister. In what shares is his personal estate distributable by his administrator?

18. A freehold estate is conveyed to trustees, and stock is transferred into their names upon trust (both as to the estate and the stock) for a married woman, for her separate use. Who will be entitled to the trust property on the decease of the married woman in her husband's lifetime, she having by will, made during coverture, without his consent, disposed of the whole property? Who would have been entitled if she had died without making a will?

Second Year Students.

EQUITY.

1. What is the meaning and application of the rule *qui prior est tempore potior est jure?*

2. Explain and illustrate the maxim that Equity regards that as done which ought to be done.

3. On what principle and to what extent does a court of Equity construe an executory contract differently from a final executed instrument, when the words in both are the same?

4. What are the principles by which Equity is guided in giving or withholding relief in the cases of mistakes in matters of law, and mistakes in matters of fact respectively?

5. What will be deemed a sufficient part performance of a parol agreement, so as to enable a court of Equity to enforce specific performance of it; and on what grounds does Equity interfere in such cases?

6. What is the difference between an *express*, an *implied*, and a *constructive* trust, and between a trust *executory* and a trust *executed?* Can a declaration of trust in any and (if any) what case be by parol?

7. What is necessary to the validity of a *donatio mortis causa?* What may be the subject of such a gift? In what respects does such a gift differ from a legacy and a gift *inter vivos* respectively?

8. State the principle on which the doctrine of election as held by courts of Equity is founded, and the occasions on which it is applied.

9. State the order in which the assets of a deceased person are applied in payment of his debts.

10. What is the distinction between legal and equitable assets? And in what respect do they differ in the mode of their administration by the Court?

11. In what respect do specific and demonstrative legacies differ?

12. State the difference between ademption and satisfaction of legacies.

13. State the essential difference between a mortgage and a conditional sale. Mention any circumstances which have been relied on as showing that an instrument, in form a purchase, with a condition of repurchase, is in fact a mortgage.

14. By what statutable provision has the devisee of an estate subject to a mortgage been deprived of an equitable right in the administration of the testator's assets, formerly possessed by him?

15. Explain the nature of an Injunction, the cases to which it is applicable, and the manner in which it is obtained. Explain the expressions "Mandatory" Injunction, "Interlocutory" Injunction, "Interim" Injunction, and "Perpetual" Injunction. Is it necessary in all cases of Injunction to show substantial damage? Can an Injunction in any case be obtained without a Bill?

Appendix, No. 8.

General Class Examination.

16. In favour of what parties will Equity give relief in the case of a defective execution of a power?

17. In what manner do bodies corporate, married women, infants, and lunatics defend a suit respectively?

18. Explain the nature and effect of a demurrer, and of a plea respectively. Describe the nature of an Answer to Interrogatories, and a Voluntary Answer.

Third Year Students.

Metaphysics.—*Examiner, Professor Park.*

1. State in general terms the problems and the data of Psychology. Illustrate the value of the phenomena of mental pathology and of comparative psychology.

2. Explain:—"Ganglia without nerves are nothing; they would be railway stations without rails."

"In most nerve-trunks, afferent and efferent fibres are bound up together."

3. Indicate the general order in the excitation of muscles, accompanying feeling of any kind.

4. State and examine Sir Wm. Hamilton's doctrine of the inverse ratio of perception and sensation.

What is the distinction between sense and muscularity?

"A sensation may be true subjectively, but not true objectively"?

5. Explain:—"The signs by which, according to the theory [of Berkeley], we judge of distance and magnitude, are the proportion of the visual field which the image occupies, the clearness or indistinctness of its outline, the brightness or faintness of its colours, the number of visible objects which seem to intervene; and the amount of muscular sensation experienced in making the eyes converge so that they both point to the object."

6. Sir William Hamilton thought it possible to reduce association to a single law? What are the Laws of Preference? How have psychologists sought to explain "the fact that we find one thought rising immediately after another in consciousness, but whose consecution we can reduce to no law of association"?

7. "The solution of this [the Nominalist and Realist controversy] lies in the connotation of general names"?

8. How may we determine the import of a proposition? Illustrate your answer by reference to the affirmation of sensible reality, sensible substance, and externality.

9. "Similarity coupled with discrimination exhausts the meaning of what we call knowledge"?

"As we find by analyzing it, and as we see it objectively displayed in every proposition, a thought involves *relation, difference, likeness.*"

10. State Dean Mansel's doctrine of Personality. To whom do we owe the expressions, *me varia cogitantem, me mecum?*

11. Indicate some of the psychological aspects of conscience.

On what grounds have philosophers affirmed "this vital truth in moral psychology, that we can improve our character if we will"?

12. Account for the following phenomena:—

"Gaiety without eclipse wearieth me."

"We find in trances, men
Forget the dream that happens then,
Until they fall in trance again."

"The consideration, that the course of things is unalterable, hath a tendency to quiet the mind under it, to beget a submission of temper to it."

"The bodily eye in every stage of life,
The most despotic of our senses."

"The apprehension of the good
Gives but the greater feeling to the worse."

---

1. Write a short sketch of the doctrines of Descartes, of Locke, or of Reid.

2. Spinoza's system "was not Atheism, but Acosmism"?

3. We owe to Berkeley "three first-rate philosophical discoveries, each sufficient to have constituted a revolution in psychology, and which by their combination have determined the whole course of subsequent philosophical speculation"?

4. "In the language of Hume every mental *impression* has its *idea*"? How did Berkeley distinguish the ideas of sense from those of imagination? What is the function of the Kantian idea?

5. What important philosophical doctrines are common to Leibniz and Sir Wm. Hamilton?

6. Explain:—"The test by which they all [philosophers of Sir Wm. Hamilton's school] decide a belief to be a part of our primitive consciousness—an original intuition of the mind—is the necessity of thinking it. Their proof that we must always, from the beginning, have had the belief, is the impossibility of getting rid of it now. This argument, applied to any of the disputed questions of philosophy, is doubly illegitimate: neither the major nor the minor premise is admissible."

7. "By reality we mean persistence in consciousness"?

"In distinguishing reality from appearance, we are not distinguishing the related from the unrelated"?

HONOR LOGIC.—*Examiner, Professor Park.*

1. Explain:—

"A science may be constructed so as to include the laws and formulas of Immediate Consistency, Mediate Consistency, and General Uniformity without transgressing the sphere of any other science."

"A mastery of the syllogistic logic does not necessarily make a sound thinker, but goes far towards making a clear one."

2. "In Science, *scimus ut sciamus*; in Art, *scimus ut producamus*"?

3. "General terms are indorsements on the bundles of our ideas"?

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General Class Examination.

4. Indicate by the technical symbols the quantity and quality of the following propositions :—

"There are some cases in which we cannot dispense with the word 'conscience.'"

"The technical terms of Political Economy are all taken from popular language."

"There are no hard lines in nature."

"Most men are but poor-hearted."

"Not all the figures that Babbage's calculating machine could run up, would stand against the general heart."

5. Give a short account of Sir William Hamilton's doctrine of the proposition, contrasting with it that of Mr. J. S. Mill.

6. Explain :—"Certainty, therefore, has for its opposite, *uncertainty* in one way—*impossibility* in another. Uncertainty, in the language of logicians, is its contradictory opposite—impossibility, its contrary opposite."

7. "How is it that Aristotle recognised only three figures, while in modern times they are represented as four?"

8. State and illustrate Bentham's distinction between a self-corroborative chain of evidence, and a self-infirmative chain.

9. "The dependence of one thing upon another is ordinarily shown by two classes of facts—the first, the presence of the cause followed by that of the effect; the second, the absence of the cause followed by the absence of the effect."

Which of these methods is the more decisive?

10. What is the nature, and what are the limits, of our explanation of natural phenomena?

11. What are the conditions of a genuine hypothesis?

12. Explain the maxim:—*Exceptio probat regulam.*

13. Draw formal inferences from these data :—

"If thought has no limits, nothing is unthinkable; and if nothing is unthinkable, nothing is absurd; and if nothing is absurd, no system of philosophy is more reasonable than another."

"The characters which appear first in the embryo are those of the widest group, and the characters of the widest group are the least subject to variation."

"The requisite to the existence of a relation is the existence of two feelings between which it is a link. The requisite to the existence of two feelings is some difference."

"Every instinctive action is an adjustment of inner relations to outer relations, and every rational action is also an adjustment of inner relations to outer relations."

"The relational element of mind is in no case [of feeling] absent. But the relational element of mind is the intellectual element."

"If I drive the young away, the elders will drive me out at their desire; and if I let them come, their fathers and friends will drive me out for their sakes."

"The Jewish law permitted interest, and it enjoined kindness to strangers."

ENGLISH LITERATURE.—*Examiner, Professor Yonge,* M.A., Oxon.

1. Give an account of the plot of Hamlet; *or* of Coriolanus—illustrating your description by quotations.

2. Write notes on the following passages :—

> But this eternal blazon must not be
> To ears of flesh and blood.
>
> Unhouseled, disappointed, unanealed.

I would have such a fellow whipped for o'er doing Termagant; it outherods Herod.

Or,

Relate the fable of Menenius Agrippa, and his explanation of it, and write notes on these passages :—

> He is grown
> Too proud to be so valiant.

To a cruel war I sent him, from whence he is returned, his brows bound with oak.

> That was the whip of your bragg'd progeny.
>
> Come my sweet wife, my dearest mother, and
> My friends of noble touch.

3. Milton had travelled in Italy. What passage in the first book of Paradise Lost seems to refer especially to a great Italian with whom he had made acquaintance?

Quote a passage in the second book of Paradise Lost, which Milton evidently borrowed from one in the sixth Æneid: and comment on the use he has made of it. What special characteristics does Milton assign to Beelzebub, Moloch, and Belial?

Write a note on :—

> For never since created man
> Met such embodied force as named with these
> Could merit more than that small infantry
> Warr'd on by cranes; though all the giant brood
> Of Phlegra with th' heroic race were join'd
> That fought at Thebes and Ilium; on each side
> Mixed with auxiliar Gods.

4. Quote Gray's allusions (in the Bard) to Edward III., the Black Prince, and Richard II. Quote also his mention of Hampden, Milton, and Oliver Cromwell, in the Elegy.

Or,

Quote Dryden's description of the Duke of Buckingham and Lord Shaftesbury from Absalom and Ahitophel.

5. In Burke's Reflections on the French Revolution, what does he say of Henry IV. of France? What is the result of the comparison which he institutes between the English and the French Governments? What does he say of the attachment of the English people to a Church Establishment? What does he say of Society; and what of the mode in which we ought to draw lessons from history?

Or,

In his speech on American taxation, what are the characters which he draws of Mr. Grenville; of Mr. Charles Townsend; of Lord Chatham's Ministry of 1776? And, in his Thoughts on the Present Discontents,

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General Class Examination.

what is his description of the objects and conduct of "the King's Men or Friends"; and what does he say of "party," or, as he calls it in other words, "political connexion"?

6. Give an abstract of Macaulay's account of Frederic's exploits, his defeats as well as his victories, in the Seven Years' War; and of the conduct of Warren Hastings with respect to the Rohillas, the Begums of Oude, and the Rajah of Benares, with his general estimate of Hastings's character.

Or,

Give Byron's characters of Napoleon, Gibbon, Voltaire, Cromwell, Cæsar, in the 3rd and 4th cantos of Childe Harold.

Mention also what he says of his own feelings towards his country; and show how he connects certain places in Italy, especially Venice, with our own literature.

What, too, does he say of the influence which the ocean had on the fortunes of Assyria, Rome, Carthage?

7. What, as described by Scott in the Lay of the Last Minstrel, was the state of the Border between England and Scotland before the Union of the two Crowns?

Or,

What does Johnson regard as the principal characteristics of Dryden's genius; and what is the result of the comparison which he institutes between his genius and that of Pope?

8. Give, if possible in his own words, Goldsmith's description of the character of the French people; and of the Swiss; and of the Dutch.

Or,

Give an abstract of any one of Bacon's Essays.

9. Give a biographical sketch of Burke.

SUBJECT FOR ESSAY.

The rise and progress of English Literature in all its various branches.

HISTORY.—*Examiner, Professor Yonge,* M.A., Oxon.

1. What was the condition of the principal countries of Europe, especially of England and France, in the year 1588?

2. Give an account of the career of the Earl of Essex.

3. Give an account of Arabella Stuart.

4. Give an account of the different negotiations with foreign countries on the subject of the marriage of the Prince of Wales, afterwards Charles I.

5. What were the Petition of Right; the Self-denying Ordinance; the Triple Alliance; the Test Act; the Declaration of Right; the Bill of Rights?

6. Relate the career of Sir R. Walpole.

7. What were the Triennial Bill; the Septennial Bill; the Peerage Bill; the Regency Bill (1788); the Orders in Council (1807)?

8. What were the principal circumstances which led to the Treaty of Ryswick; the Treaty of Utrecht; the Treaty of the Hague; the Treaty of Amiens?

9. What points of Constitutional Law were involved in the different proceedings taken against Wilkes?

10. Give a list of the Prime Ministers of Great Britain between the years 1720—1820; mentioning some one important event in the ministerial career of each statesman.

11. Who were the contending parties, and the commanders-in-chief, in the battles of Marston Moor; Naseby; Neerwinden; Ramilies; Oudenarde; Dettingen; Brandywine; the Nile; Talavera; Salamanca; Orthes; Maida; and what was the result of each battle? Give also (approximately) the dates.

12. Trace the relationship between William the Conqueror and Queen Victoria.

For those who do not take up French History.

SUBJECT OF ESSAY.

What are the principal peculiarities of the British Constitution to which the superior freedom enjoyed by the subjects of the British Crown (superior, that is, to those enjoyed by any other people) is principally owing?

For those who do take up French History.

1. What were the chief aims of Richelieu's policy?
2. Give an account of the Rebellion of the Fronde.
3. How did Lorraine become a French province?
4. Describe Turgot's and Necker's schemes for Political or Constitutional Reform.
5. Point out some of the most striking points of resemblance between the French Revolution of 1789 and the English Rebellion against Charles I.
6. Give an account of Turgot's arguments against the re-establishment of the Parliaments: and point out how far they were verified by the conduct of the Parliaments during the period between their re-establishment and the meeting of the States-General in 1789.
7. What were the Notables; and on what occasion and for what purpose or purposes were they convoked in the reign of Louis XVI.?
8. What were the regulations finally determined on with respect to the composition of the States General, and the mode in which their business was to be transacted?
9. Give an account of Mirabeau.
10. What was the Directory, and the Consulate; under what circumstances were these forms of Government established? Explain the details of their arrangements; and the circumstances which led to their discontinuance.
11. Who were the contracting parties at the peace of Campo Formio; of Amiens; and of Tilsit? And what were chief conditions of each treaty?
12. What were the principal events in the History of France between May and November, 1813?

ANATOMY AND PHYSIOLOGY.—*Examiner, Dr. Redfern.*

[First Year Students are required to answer questions 1, 2, 3, 4, 5; Second Year, 3, 4, 5, 6, 7; and Third and Fourth, 5, 6, 7, 8, 9.]

1. Describe the microscopical characters of the structures which compose tendon, with its vessels and nerves.
2. Mention the constituents of blood, and state what you know of the functions of each.

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General Class Examination.

3. By what means has the pressure of the blood in the arteries and veins been measured? What is the rate of its flow in the arteries, capillaries and veins; and how has this been ascertained?

4. Describe the structure and mode of action of lymphatic glands.

5. Describe structures which compose a lobule of the liver, with their relations to each other.

6. Give an account of the structure of the rods and cones of the retina, their relative numbers in different parts of the membrane, and accompany your account with a sketch of these structures.

7. Describe the corneal tissue,—explain its sensibility; and state in what particulars its structure enables you to explain the rapid changes induced in it by disease.

8. Give a history of a Graafian follicle of the ovary;—its development,—its progress to maturity,—the discharge of its contents, and its involution.

9. State distinctly and in detail what parts and conditions are necessary for the production of co-ordinated voluntary muscular acts;—also those which are necessary for acquiring a knowledge of external objects by the organs of sense.

PRACTICAL ANATOMY.—*Examiner, Dr. Redfern.*

[In addition to making a dissection, First Year Students are required to answer questions 1, 2, 3, 4, 5; Second Year, 3, 4, 5, 6, 7; and Third and Fourth Year, 6, 7, 8, 9, 10.]

1. Give an account of the spheno-maxillary fossa,—the parts of bones which form its boundaries,—and the foramina and canals connected with it.

2. Describe the characters of the movements which take place at the shoulder, elbow, radio-carpal, and carpal articulations.

3. State the actions of the muscles which have attachments to the scapula and humerus respectively.

4. Describe the origins, relations and terminations of the vessels and nerves in the abdominal wall.

5. Give an account of the roots of the lungs,—the parts contained in them, with their relations to each other, and to the parts about them.

6. Describe the method of dissecting the parts of inguinal and femoral hernia, mentioning each part in the order in which it is met with.

7. Enumerate the muscles of the neck, and state what nerve supplies each, with the source and the point of entrance of each nerve into its muscle.

8. Describe the arch and thoracic portion of the aorta, with their course, relations and branches.

9. Give an account of the position, formation and branches of the sacral plexus of nerves.

10. State the positions of the cranial nerves on the encephalon, their characters, their course within the cranium, and their relations to their membranous sheaths.

SURGERY.—*Examiner, Dr. Gordon.*

1. Describe the various accidents in the vicinity of the Elbow Joint, and those of the joint itself, stating the anatomical facts which militate against there being such an accident as the disjunction of the lower epiphyses of the Humerus, as described by Smith and others.

2. Describe the signs, differential diagnosis, morbid anatomy, and treatment of White Swelling of the Knee-joint. *Appendix, No. 8.*

3. Describe the signs, differential diagnosis, and treatment of Hernia of the Linea Alba. General Class Examination.

4. Give a brief sketch of the history of the treatment of Popliteal Aneurism.

MEDICINE.—*Examiner, Dr. Cuming.*

[First Year Students are required to answer the first six questions; Second Year Students the last six.]

1. Give an account of the Croupous Inflammation of mucous membranes.
2. Give the diagnosis and treatment of Gangrene of the Lung.
3. What are the physical signs of Pericarditis?
4. Give the pathology and symptoms of Cirrhosis of the Liver.
5. Give an account of the paroxysm in Intermittent Fever.
6. What are the sequelæ of Diphtheria?
7. Explain the production of Hæmorrhagic Infarction.
8. What are the symptoms of Glosso-laryngeal Paralysis?
9. Give the morbid anatomy of Tubercular Meningitis.

MATERIA MEDICA.—*Examiner, Dr. J. Seaton Reid.*

1. Enumerate the proofs in support of the statement, "that medicines must be absorbed before they can act on distant parts."
2. What reply would you give to the statement of those who support the "Nervous theory," in opposition to the "Absorption theory"?
3. How are Acid medicines classified?
4. What is the peculiarity belonging to each class?
5. How are Emetic medicines classified?
6. Write a prescription for the use of one of each class by an adult.
7. How are Diuretic medicines classified?
8. Write a prescription for the use of one of each class by an adult.
9. How are Expectorant medicines classified?
10. Write a prescription for the use of one of each class by an adult.
11. Name the medicines on the table, and classify them therapeutically.

FIRST YEAR STUDENTS.

GREEK.—*Examiner, Professor MacDouall.*

I.—Translate perspicuously the following extracts from the *Cyropaideia* of XENOPHON:—

καὶ αὐτῶν δὲ τῶν πολεμικῶν περιελὼν[1] καὶ τὸ τόξῳ μελετᾶν[2] καὶ ἀκοντίῳ κατέλιπε τοῦτο μόνον αὐτοῖς τὸ σὺν μαχαίρᾳ καὶ γέρρῳ καὶ θώρακι μάχεσθαι· ὥστε εὐθὺς αὐτῶν παρεσκεύασε[4] τὰς γνώμας, ὡς ὁμόσε[2] ἰτέον[2] εἴη[4] τοῖς πολεμίοις[3] ἢ ὁμολογητέον[2] μηδενὸς[3] εἶναι ἀξίους συμμάχους·[3] τοῦτο δὲ χαλεπὸν ὁμολογῆσαι, οἵτινες ἂν εἰδῶσιν[1] ὅτι οὐδὲ δι' ἕν ἄλλο τρέφονται ἢ ὅπως μαχοῦνται[4] ὑπὲρ τῶν τρεφόντων. ἔτι τε πρὸς τούτοις, ἐννοήσας ὅτι περὶ

Appendix, No. 8.

General Class Examination.

ὁπόσων ἂν γένωνται[4] ἀνθρώποις φιλονεικίαι[2] πολὺ μᾶλλον ἐθέλουσι ταῦτα ἀσκεῖν, ἀγῶνας αὐτοῖς προεῖπεν ἁπάντων ὁπόσα ἐγίγνωσκεν ἀσκεῖσθαι ἀγαθὸν εἶναι ὑπὸ στρατιωτῶν. * * * ἐν δὲ τῷ ὁμοῦ σκηνοῦν[1] ἐδόκουν μὲν αὐτῷ ὠφελεῖσθαι πρὸς τὸν μέλλοντα ἀγῶνα τοῦτο,[3] ὅτι ἑώρων[1] ἀλλήλους ὁμοίως τρεφομένους καὶ οὐκ ἐνῆν[1] πρόφασις[2] μειονεξίας[2] ὥστε ὑφίεσθαι[4] τινα κακίω[1] τε ἕτερον ἑτέρου εἶναι πρὸς τοὺς πολεμίους. ὠφελεῖσθαι δ' ἐδόκουν αὐτῷ καὶ πρὸς τὸ γιγνώσκειν ἀλλήλους ὁμοῦ σκηνοῦντες. ἐκ δὲ τῷ γιγνώσκεσθαι καὶ τὸ αἰσχύνεσθαι πᾶσι[3] δοκεῖ μᾶλλον ἐγγίγνεσθαι· οἱ δὲ ἀγνοούμενοι[2] ῥᾳδιουργεῖν[2] πως μᾶλλον δοκοῦσιν, ὥσπερ οἱ ἐν σκότει[1] ὄντες. * * * τὸ δὲ διακριβοῦν[2] τὰς τάξεις σφόδρα ἐδόκει αὐτῷ ἀγαθὸν εἶναι εἰς τὸ μὴ ταράττεσθαι καὶ—εἰ ταραχθείη[1]—θᾶττον[1] καταστῆναι,[1] ὥσπερ γε καὶ λίθων καὶ ξύλων ἃ ἂν δέῃ συναρμοσθῆναι, ἔστι, κἂν ὁπωσοῦν καταβεβλημένα τύχῃ, συναρμόσαι[2] αὐτὰ εὐπετῶς,[2] ἂν ἔχῃ[4] γνωρίσματα[2] ὥστ' εὔδηλον εἶναι[4] ἐξ ὁποίας ἕκαστον χώρας αὐτῶν ἐστιν. ἐδόκουν δ' ὠφελεῖσθαι αὐτῷ ὁμοῦ τρεφόμενοι καὶ πρὸς τὸ ἧττον ἀλλήλους ἐθέλειν ἀπολιπεῖν, ὅτι ἑώρα καὶ τὰ θηρία τὰ συντρεφόμενα δεινὸν ἔχοντα πόθον, ἤν τις αὐτὰ διασπᾷ[1] ἀπ' ἀλλήλων.

II.—1. Parse accurately and fully every word to which the figure 1 is attached.

2. Derive or decompound every word to which the figure 2 is attached.

3. Explain the case assigned to each noun or pronoun to which the figure 3 is attached.

4. Explain the mode assigned to *παρεσκεύασε, ὑφίεσθαι,* and (*εὔδηλον*) *εἶναι,* after *ὥστε,*—to *εἴη* after *ὡς,*—to *μαχοῦνται* after *ὅπως,*—to *γένωνται* after *περὶ ὁπόσων ἄν,*—to *ἔχῃ* after *ἄν.*

5. Point out or supply the antecedents to the relative clauses *οἵτινες ἂν εἰδῶσιν* and *περὶ ὁπόσων ἂν γένωνται*; and unfold the construction of every word in the clauses *ἀγῶνας αὐτοῖς προεῖπεν ἁπάντων ὁπόσα ἐγίγνωσκεν ἀσκεῖσθαι ἀγαθὸν εἶναι ὑπὸ στρατιωτῶν,—ξύλων ἃ ἂν δέῃ συναρμοσθῆναι,—κἂν ὁπωσοῦν καταβεβλημένα τύχῃ.*

N.B.—Candidates for honors may pass by question 1. Candidates for pass may confine themselves to questions 1 and 2.

Second Year Students.

I.—Translate perspicuously the following extracts from Xenophon's *Memoir of Socrates:*—

(*a.*) *τί δέ; οὐ δοκεῖ σοι τῶν τοιούτων διαφέρειν τὰ ἑκούσια τῶν ἀκουσίων, ἢ ὁ μὲν ἑκὼν πεινῶν φάγοι[1] ἂν ὁπότε βούλοιτο καὶ ὁ ἑκὼν διψῶν πίοι[1] καὶ τἄλλα[2] ὡσαύτως,[2] τῷ δ' ἐξ ἀνάγκης ταῦτα πάσχοντι οὐκ ἔξεστιν ὁπόταν βούληται παύεσθαι; ἔπειτα ὁ μὲν ἑκουσίως ταλαιπωρῶν[2] ἐπ' ἀγαθῇ ἐλπίδι πονῶν εὐφραίνεται,[2] οἷον οἱ τὰ θηρία θηρῶντες ἐλπίδι τοῦ λήψεσθαι ἡδέως μοχθοῦσι. καὶ τὰ μὲν τοιαῦτα ἆθλα[1] τῶν πόνων μικροῦ[3] τινος[3] ἄξιά ἐστι· τοὺς δὲ πονοῦντας, ἵνα φίλους ἀγαθοὺς κτήσωνται ἢ ἐχθροὺς χειρώσωνται,[1] ἢ ἵνα δυνατοὶ γενόμενοι καὶ τοῖς σώμασι καὶ ταῖς ψυχαῖς καὶ τὸν ἑαυτῶν οἶκον καλῶς οἰκῶσι καὶ τοὺς φίλους εὖ ποιῶσι καὶ τὴν πατρίδα εὐεργετῶσι,[2] πῶς οὐκ οἴεσθαι χρὴ τούτους καὶ πονεῖν ἡδέως εἰς τὰ τοιαῦτα καὶ ζῆν εὐφραινομένους, ἀγαμένους[1] μὲν ἑαυτοὺς ἐπαινουμένους δὲ καὶ ζηλουμένους ὑπὸ τῶν ἄλλων; ἔτι δὲ αἱ μὲν ῥᾳδιουργίαι[2] καὶ ἐκ τοῦ παραχρῆμα ἡδοναὶ οὔτε σώματι εὐεξίαν[2] ἱκαναί εἰσιν ἐνεργάζεσθαι,—ὥς φασιν οἱ γυμνασταί,—οὔτε*

ψυχῇ ἐπιστήμην ἀξιόλογον οὐδεμίαν ἐμποιοῦσιν· αἱ δὲ διὰ καρτερίας ἐπιμέλειαι τῶν καλῶν τε κἀγαθῶν ἔργων[3] *ἐφικνεῖσθαι ποιοῦσιν.* Appendix, No. 8.

(*b.*) *πρῶτον μὲν γὰρ οὐ πολέμων*[3] *οὐδὲ πραγμάτων*[3] *φροντιεῖς,*[1] *ἀλλὰ σκοπούμενος*[1] *διάξεις τί ἂν κεχαρισμένον*[1] *ἢ σιτίον*[1] *ἢ ποτὸν εὕροις, ἢ τί ἂν ἰδὼν ἢ τί ἀκούσας τερφθείης,*[1] *ἢ τίνων*[3] *ἂν ὀσφραινόμενος*[1] *ἢ ἁπτόμενος ἡσθείης,*[1] *ἢ πῶς ἂν μαλακώτατα καθεύδοις, καὶ πῶς ἂν ἀπονώτατα τούτων*[3] *πάντων*[3] *τυγχάνοις. ἐὰν δέ ποτε γένηταί τις ὑποψία σπάνεως*[1] *ἀφ' ὧν ἔσται ταῦτα, οὐ φόβος μή σε ἀγάγω*[1] *ἐπὶ τὸ πονοῦντα καὶ ταλαιπωροῦντα τῷ σώματι καὶ τῇ ψυχῇ ταῦτα πορίζεσθαι· ἀλλ' οἷς ἂν οἱ ἄλλοι ἐργάζωνται, τούτοις σὺ χρήσῃ*[1] *οὐδενὸς*[3] *ἀπεχόμενος ὅθεν ἂν δυνατὸν ᾖ τι κερδᾶναι·*[1] *πανταχόθεν γὰρ ὠφελεῖσθαι τοῖς ἐμοὶ ξυνοῦσιν ἐξουσίαν ἔγωγε παρέχω.* General Class Examination.

II.—1. Parse fully every word to which the figure 1 is attached, annexing the words which correspond as "imperfects" to *φάγοι, πίοι, τερφθείης, ἡσθείης,* and distinguishing *ἆθλα* from *ἄθλοι.*

2. Derive or decompound every word to which the figure 2 is attached.

3. Explain (*a*) the use of the genitive case in regard to every word to which the figure 3 is attached, and (*b*) the dative in *οἷς ἂν ἐργάζωνται.*

4. (*a*) Could *λαβεῖν* or *λαμβάνειν* be substituted for *λήψεσθαι*? (*b*) Elucidate the phrases *αἱ ἐκ τοῦ παραχρῆμα ἡδοναὶ* and *αἱ διὰ καρτερίας ἐπιμέλειαι.* (*c*) Supply the elleipsis in *σπάνεως ἀφ' ὧν ἔσται.* (*d*) What sort of clause is exemplified in *τί ἂν ἰδὼν τερφθείης*? (*e*) What elleipsis is often admitted in phrases like *οὐ φόβος μή σε ἀγάγω*?

First Year Students.

Latin.—*Examiner, Mr. Crossley.*

Translate :—

1. In iis nova terribilisque species visa est, quod armati—ita mos gentis erat—in concilium venerunt. Cum verbis extollentes gloriam virtutemque populi Romani ac magnitudinem imperii petissent, ne Poeno bellum Italiae inferenti per agros urbesque suas transitum darent, tantus cum fremitu risus dicitur ortus, ut vix a magistratibus maioribusque natu iuventus sedaretur: adeo stolida impudensque postulatio visa est, censere, ne in Italiam transmittant Galli bellum, ipsos id advertere in se agrosque suos pro alienis populandos obicere. Sedato tandem fremitu responsum legatis est, neque Romanorum in se meritum esse neque Carthaginiensium iniuriam, ob quae aut pro Romanis aut adversus Poenos sumant arma: contra ea audire sese, gentis suae homines agro finibusque Italiae pelli a populo Romano stipendiumque pendere et cetera indigna pati.

2. Sempronius ad tumultum Numidarum primum omnem equitatum, ferox ea parte virium, deinde sex milia peditum, postremo omnes copias ad destinatum iam ante consilio avidus certaminis eduxit. erat forte brumae tempus et nivalis dies in locis Alpibus Apenninoque interiectis, propinquitate etiam fluminum ac paludium praegelidis. ad hoc raptim eductis hominibus atque equis, non capto ante cibo, non ope ulla ad arcendum frigus adhibita, nihil caloris inerat, et quidquid aurae fluminis appropinquabant, adflabat acrior frigoris vis. ut vero refugientes Numidas insequentes aquam ingressi sunt—et erat pectoribus tenus, aucta nocturno imbri—tum utique egressis rigere omnibus corpora, ut vix armorum tenendorum potentia esset, et simul lassitudine et procedente iam die fame etiam deficere.

Appendix, No. 8.

General Class Examination.

(*a*) Give the principal tenses of *tollo, peto, orior, censeo, adverto, obicio, patior, pendo* and *pendeo.*

(*b*) What is the construction of *mille* and of *millia* respectively?

(*c*) Explain *quidquid aurae fluminis adpropinquabant.*

(*d*) Write a note on the use of the so-called *historical* infinitive, giving examples.

3. Quis igitur hoc homine scientior umquam aut fuit aut esse debuit? qui e ludo atque e pueritiae disciplinis, bello maximo atque acerrimis hostibus ad patris exercitum atque in militiae disciplinam profectus est; qui extrema pueritia miles in exercitu fuit summi imperatoris, ineunte adolescentia maximi ipse exercitus imperator; qui saepius cum hoste conflixit quam quisquam cum inimico concertavit, plura bella gessit quam caeteri legerunt, plures provincias confecit quam alii concupiverunt; cuius adolescentia ad scientiam rei militaris non alienis praeceptis, sed suis imperiis, non offensionibus belli, sed victoriis, non stipendiis, sed triumphis est erudita. Quod denique genus esse belli potest, in quo illum non exercuerit fortuna rei publicae? Civile, Africanum, Transalpinum, Hispaniense, mixtum ex civitatibus atque ex bellicosissimis nationibus, servile, navale bellum, varia et diversa genera et bellorum et hostium, non solum gesta ab hoc uno, sed etiam confecta, nullam rem esse declarant in usu positam militari, quae huius viri scientiam fugere possit.

(*a.*) Write a brief account of the *occasion* of the speech *De Imperio Cn. Pompeii.*

(*b.*) Mention in order the various events alluded to in the above passage.

4. O qualis facies et quali digna tabella,
Quum Gaetula ducem portaret bellua luscum!
Exitus ergo quis est? o gloria! vincitur idem
Nempe et in exsilium praeceps fugit atque ibi magnus
Mirandusque cliens sedet ad praetoria regis,
Donec Bithyno libeat vigilare tyranno.
Finem animae, quae res humanas miscuit olim,
Non gladii, non saxa dabunt, non tela, sed ille
Cannarum vindex ac tanti sanguinis ultor
Annulus. I, demens, et saevas curre per Alpes,
Ut pueris placeas et declamatio fias!
Unus Pellaeo iuveni non sufficit orbis;
Aestuat infelix angusto limite mundi,
Ut Gyari clausus scopulis parvaque Seripho:
Quum tamen a figulis munitam intraverit urbem,
Sarcophago contentus erit. Mors sola fatetur,
Quantula sint hominum corpuscula.

Add brief notes in explanation of these lines.

PASS.

5. Translate into Latin prose:—

Now when Tarquinius had become king, he carried on war with the Latins and conquered many of their towns. He made war also on the Sabines, who had invaded the Roman country with a large and powerful army, and had penetrated even to the walls of the city. And when Tarquinius was at war with them and was in great danger, he vowed a

temple to Jupiter, and so he overcame his enemies. Then he waged war against the Etruscans, and subdued the whole land of Etruria, so that the Etruscans recognised him as their king, and sent him the royal insignia, the golden crown, the sceptre, the ivory chair, the embroidered tunic, the purple toga, and the twelve axes in the bundles of rods.

Appendix, No. 8.

General Class Examination.

HONORS.

The most extraordinary anecdotes are related about the reception of the Roman embassy in Tarentum. L. Postumius, who was at the head of it, was greeted, it is said, with scoffing and abuse by the assembled Tarentine people. His foreign costume and the mistakes in his broken Greek, furnished some mountebanks with materials of ribaldry and insult, in which the assembled people joined, amid shouts of merriment. At last a vulgar wretch is said to have thrown dirt on the white toga of the Roman. And this infamous treatment of the sacred person of an ambassador, instead of causing general indignation, was applauded as a merry trick.—IHNE, *Roman History.*

HONORS.

Translate with brief annotations :—

1. Quid tempestates auctumni et sidera dicam,
Atque, ubi iam breviorque dies et mollior aestas,
Quae vigilanda viris; vel quum ruit imbriferum ver,
Spicea iam campis quum messis inhorruit, et quum
Frumenta in viridi stipula lactentia turgent?
Saepe ego, quum flavis messorem induceret arvis
Agricola et fragili iam stringeret hordea culmo,
Omnia ventorum concurrere proelia vidi,
Quae gravidam late segetem ab radicibus imis
Sublimem expulsam eruerent: ita turbine nigro
Ferret hiems culmumque levem stipulasque volantes.

(*a*) Explain the following :

(1) nullo tantum se Mysia cultu
Jactat, et ipsa suas mirantur Gargara messes.
(2) Nec (videtur) fratris radiis obnoxia surgere Luna.
(3) Ergo inter sese paribus concurrere telis
Romanas acies iterum videre Philippi.

There is an inaccuracy in the last passage cited?

(*b*) Give the original Greek of the following Virgilian expressions :—

(1) Nudus ara, sere nudus.
(2) Quintam fuge : pallidus *Orcus*
Eumenidesque satae.
(3) Mortalibus aegris.

(*c*) Write a short note on the *sources* of the Georgics.

2. Translate and explain fully :

1° Abs te peto, ut mihi hoc ignoscas et me existimes humanitate esse prohibitum, ne contra amici summam existimationem miserrimo eius tempore venirem, quum is omnia sua studia et officia in me contulisset. Quod si voles in me esse durior, ambitionem putabis mihi obstitisse. Ego autem arbitror, etiam si id sit, mihi ignoscendum esse : ἐκεὶ οὐχ ἱερήϊον,

Appendix, No. 8.

General Class Examination.

οὐδὲ βοείην. Vides enim in quo cursu simus et quam omnes gratias non modo retinendas, verum etiam acquirendas putemus. Spero tibi me causam probasse, cupio quidem certe. Hermathena tua valde me delectat et posita ita belle est, ut totum gymnasium eius ἀνάθημα esse videatur. Multum te amamus.

What emendation has been suggested for "eius ἀνάθημα"?

2° Neque tam me εὐελπιστία consolatur, ut antea, quam ἀδιαφορία, qua nulla in re tam utor quam in hac civili et publica. Quin etiam, quod est subinane in nobis et non ἀφιλόδοξον—bellum est enim sua vitia nosse—adficitur quadam delectatione. Solebat enim me pungere, ne Sampsicerami merita in patriam ad annos DC. maiora viderentur quam nostra: hac quidem cura certe iam vacuus sum. Iacet enim ille sic, ut πτῶσις Curiana stare videatur. Sed haec coram.

3° Explain:

1. ταὐτόματον ἡμῶν.
2. Quum pro populo fieret.
3. τὸ ἐπὶ τῇ φακῇ μύρον Lentulus.
4. Tribuni non tam *aerati*, quam, ut appellantur, *aerarii*.
5. L. Cincio HS. CCIↃↃ CCIↃↃ CCCC curavi.

4° What *persons* are referred to by the following designations:—

βόωπις: *Auli filius: Arabarches: signifer Athenio: pacificator Allobrogum*—Τεῦκρις.

5° Quote some of the fragments of Greek poetry introduced by Cicero into his letters.

3. *Ct.* Ego illam hercle vero omitto, qui quidem te habeam fratrem: o mi Aeschine,
O mi germane: ah vereor coram in os te laudare amplius,
Ne id adsentandi magis quam quo habeam gratum facere existumes.
Ae. Age inepte, quasi nunc non norimus nos inter nos, Ctesipho
Hoc mihi dolet, nos sero rescisse et paene in eum rem locum
Redisse, ut si omnes cuperent nil tibi possent auxiliarier.
Ct. Pudebat. *Ae.* Ah, stultitiast istaec, non pudor: tam ob parvolam
Rem paene e patria! turpe dictu. deos quaeso ut istaec prohibeant.

(*a*) Explain the construction of *adsentandi*, giving other examples.
(*b*) Interpret and annotate the following phrases:—

1. Non me indicente haec fiunt.
2. Dinumeret illi Babylo viginti minas.
3. Cedo, ut melius dicas.

(*c*) Quote some examples of the apparent influence on Terence's Latinity of his Greek originals.
(*d*) Make a metrical analysis of the first five lines of the above extract.

4. (*a*) Nam, si Pieria quadrans tibi nullus in arca
Ostendatur, ames nomen victumque Machaerae
Et vendas potius, commissa quod auctio vendit
Stantibus, oenophorum, tripodes, armaria, cistas,
Alcithoen Pacci, Thebas et Terea Fausti.
Hoc satius, quam si dicas sub iudice, Vidi,
Quod non vidisti; faciant equites Asiani,
(Quamquam et Cappadoces faciant equitesque Bithyni)
Altera quos nudo traducit Gallia talo.

(*b*) An magis oblectant animum iactata petauro
Corpora quique solet rectum descendere funem,
Quam tu, Corycia semper qui puppe moraris
Atque habitas, Coro semper tollendus et Austro,
Perditus ac villis sacci mercator olentis,
Qui gaudes pingue antiquae de litore Cretae
Passum et municipes Iovis advexisse lagenas?

(*c*) Explain:—

1. melior Locusta.
2. Si capiendi jus nullum uxoris.
3. In qua te quaero proseucha?
4. artem scindens Theodori.
5. rarus venit in coenacula miles.

(*d*) What Greek words does Juvenal employ to express a *cloak*, a *side-dish*, a *trainer*, a *table of pedigree*, an *attorney*;—*harness*, *rations*, *benches*?

(*e*) What is known of Juvenal's personal history?

Second Year Students.

Translate, adding brief notes where required:—

1. Sed attende, quaeso, quae sint consecuta. Primum illa furia muliebrium religionum, qui non pluris fecerat Bonam deam quam tres sorores, impunitatem est illorum sententiis adsecutus, qui quum tribunus pl. poenas a seditioso civi per bonos viros iudicio persequi vellet, exemplum praeclarissimum in posterum vindicandae seditionis de re publica sustulerunt: iidemque postea non meum monumentum—non enim illae manubiae meae, sed operis locatio mea fuerat,—monumentum vero senatus hostili nomine et cruentis inustum litteris esse passi sunt.

2. Sed ut ad rem redeam, me tibi non amicum modo, verum etiam amicissimum existimes velim. Profecto omnibus officiis meis efficiama, ut ita esse vere possis iudicare. Tu autem si id agis, ut minus mea causa, dum ego absim, debere videaris, quam ego tua laborarim, libero te ista cura:

πάρ' ἐμοί γε καὶ ἄλλοι,
οἵ κέ με τιμήσουσι, μάλιστα δὲ μητίετα Ζεύς.

Si autem natura es φιλαίτιος, illud non perficies, quo minus tua causa velim: hoc adsequere, ut quam in partem tu accipias minus laborem. Haec ad te scripsi liberius, fretus conscientia officii mei benevolentiaeque, quam a me certo iudicio susceptam, quoad tu voles, conservabo.

(*a*) Explain *tua causa velim*. The verbs *nolo* and *malo* admit of a somewhat similar construction?

(*b*) Distinguish *sunt qui putant* from *sunt qui putent*, adducing examples.

(*c*) Explain the following words and phrases: *dibaphus*, *evocatus*, *stator*, *mihi est integrum*, *prolixus*, κωμικὸς μάρτυς, *senatus auctoritas*.

(*d*) Write in full: M. TULLIUS M. F. M. N. CICERO IMP. S. D. C. CAELIO L. F. C. N. CALDO QUAEST. DES.

(*e*) What are the *limitations* to the use of the epistolary tenses?

Appendix, No. 8.

General Class Examination.

3. It, redit et narrat, Volteium nomine Menam,
Praeconem, tenui censu, sine crimine, notum
Et properare loco et cessare, et quaerere et uti,
Gaudentem parvisque sodalibus et lare certo
Et ludis et post decisa negotia Campo.
"Scitari libet ex ipso quodcunque refers: dic
Ad coenam veniat." Non sane credere Mena,
Mirari secum tacitus. Quid multa? "Benigne"
Respondet. "Neget ille mihi?" "Negat improbus, et te
Neglegit aut horret." Vulteium mane Philippus
Vilia vendentem tunicato scruta popello
Occupat, et salvere iubet prior; ille Philippo
Excusare laborem et mercenaria vincla,
Quod non mane domum venisset, denique quod non
Providisset eum. "Sic ignovisse putato
Me tibi, si coenas hodie mecum." "Ut libet."
"Ergo
Post nonam venies; nunc i, rem strenuus auge!"

4. Frater erat Romae consulti rhetor, ut alter
Alterius sermone meros audiret honores,
Gracchus ut hic illi foret, huic ut Mucius ille.
Qui minus argutos vexat furor iste poetas?
Carmina compono, hic elegos. "Mirabile visu
Caelatumque novem Musis opus!" Adspice primum,
Quanto cum fastu, quanto molimine circum-
spectemus vacuam Romanis vatibus aedem;
Mox etiam, si forte vacas, sequere et procul audi,
Quid ferat et quare sibi nectat uterque coronam.
Caedimur, et totidem plagis consumimus hostem
Lento Samnites ad lumina prima duello.

(1) Annotate the following:—

(*a*) moriar: mors ultima linea rerum est.
(*b*) Puteal Libonis.
(*c*) Nil intra est oleam, nil extra est in nuce duri.
(*d*) Quadringentis sex septem milia desunt: Plebs eris.

(2) Quote any expressions you may remember in which Horace refers to himself or his own personal history.

5. Translate freely into Latin Prose, in the style of Cicero's Letters:—

Sir,—I have received yours, and thank your partiality in my favour. You say words cannot express the gratitude you feel for this favour, and yet you would have *me* express what you feel, and in a few words. I own myself unequal to the task; for even granting it possible to express an inexpressible idea, I am the worst person you could have pitched upon for this purpose, who have received so few favours from the great myself, that I am utterly unacquainted with what kind of thanks they like best. Whether the Prince most loves poetry or prose, I protest I do not know; but this I dare venture to affirm, that you can give him as much satisfaction in either as I can. I am, Sir, your affectionate servant,—A. Pope.

Alternative for Pass :—

The influence of the people seems to have been of little moment. It is reported that they had only to give their votes where a difference of opinion arose between the Senate and the Suffetes. The assembly of the people had the right of electing the magistrates. But that was a privilege of small importance in a state where birth and wealth decided the election—the highest offices of state were, if not exactly purchasable, as Aristotle declares, still easily attained by the rich and influential, as in all countries where public offices conferring interest and profit are obtained by popular election.

Honors.

Translate, with occasional annotations :—

(A.) *Ae.* Eho, nonne haec iusta tibi *videntur postea ?*
Mi. Non. *Ae.* Obsecro non ? an illam hinc abducet, pater ?
Mi. Quid illam ni abducat ? *Ae.* Factum a vobis duriter
Inmisericorditerque atque etiam, si est, pater,
Dicendum magis aperte, inliberaliter.
Mi. Quam obrem ? *Ae.* Rogas me ? quid illi tandem creditis
Fore animi misero, qui illa consuevit prior ?
Qui infelix hauscio an illam misere nunc amat,
Quom hanc sibi videbit praesens praesentem eripi,
Abduci ab oculis ? facinus indignum, pater.
Mi. Qua ratione istuc ? quis despondit ? quis dedit ?
Quoi quando nupsit ? auctor his rebus quis est ?
Quor duxit alienam ? *Ae.* An sedere oportuit
Domi virginem tam grandem, dum cognatus hinc
Illinc veniret expectantem ? haec, mi pater,
Te dicere aequom fuit et id defendere.

1. Correct the following readings :—
   (*a.*) *hilarem hunc sumamus diem.*
   (*b.*) *qui illa consuevit prior.*
   (*c.*) *Prodeambulare huc libitum est.*

2. Give a brief sketch of Roman Comedy prior to Terence.

3. Mention and illustrate some of the leading principles of Terentian metre.

(B.) Nihil autem neque publicae neque privatae rei nisi armati agunt. sed arma sumere non ante cuiquam moris quam civitas suffecturum probaverit. tum in ipso concilio vel principum aliquis vel pater vel propinqui scuto frameaque iuvenem ornant : haec apud illos toga, hic primus iuventae honos ; ante hoc domus pars videntur, mox rei publicae. insignis nobilitas aut magna patrum merita principis dignationem etiam adulescentulis adsignant : ceteri robustioribus ac iam pridem probatis adgregantur, nec rubor inter comites adspici. gradus quin etiam ipse comitatus habet, iudicio eius quem sectantur ; magnaque et comitum aemulatio, quibus primus apud principem suum locus, et principum, cui plurimi et acerrimi comites. haec dignitas, hae vires, magno semper electorum iuvenum globo circumdari, in pace decus, in bello praesidium.

(C.) Aderat iam annus, quo proconsulatum Asiae et Africae sortiretur, et occiso Civica nuper nec Agricolae consilium deerat nec Domitiano exemplum. accessere quidam cogitationum principis periti, qui iturusne

Appendix, No. 8.

General Class Examination.

esset in provinciam ultro Agricolam interrogarent. ac primo occultius quietem et otium laudare, mox operam suam in adprobanda excusatione offerre, postremo non iam obscuri suadentes simul terrentesque pertraxere ad Domitianum. qui paratus simulatione, in adrogantiam compositus, et audiit preces excusantis et, cum adnuisset, agi sibi gratias passus est, nec erubuit beneficii invidia. salarium tamen proconsulare solitum offerri et quibusdam a se ipso concessum Agricolae non dedit, sive offensus non petitum, sive ex conscientia, ne quod vetuerat videretur emisse. proprium humani ingenii est odisse quem laeseris: Domitiani vero natura praeceps in iram, et quo obscurior, eo inrevocabilior, moderatione tamen prudentiaque Agricolae leniebatur, quia non contumacia neque inani iactatione libertatis famam fatumque provocabat.

Explain:—

1. Namque per ludibrium assidere clausis horreis et emere ultro frumenta ac ludere pretio cogebantur.

2. Dispecta est et Thule, quam † hactenus iussum et hiems abdebat.

How may this passage be amended?

3. Apud Suevos usque ad canitiem horrentem capillum retro sequuntur, ac saepe in ipso solo vertice religant.

4. Criticise the *Agricola* briefly from a literary point of view.

Or,

Point out and exemplify some of the chief peculiarities of Tacitus' style.

Or,

Trace the probable course, from Britain to Germany, of the *cohors Usipiorum,* whose desertion is mentioned in the *Agricola.*

(D.) Cum flueret lutulentus, erat quod tollere velles;
Garrulus atque piger scribendi ferre laborem,
Scribendi recte: nam ut multum, nil moror.—
Ecce,
Crispinus minimo me provocat: "Accipe, si vis,
Accipiam tabulas; detur nobis locus, hora,
Custodes; videamus uter plus scribere possit."
Di bene fecerunt, inopis me quodque pusilli
Finxerunt animi, raro et perpauca loquentis;
At tu conclusas hircinis follibus auras
Usque laborantes, dum ferrum molliat ignis,
Ut mavis, imitare. Beatus Fannius ultro
Delatis capsis et imagine, cum mea nemo
Scripta legat, vulgo recitare timentis ob hanc rem,
Quod sunt quos genus hoc minime iuvat utpote plures
Culpari dignos.

(E.) Scribe decem a Nerio—non est satis, adde Cicutae
Nodosi tabulas centum, mille adde catenas;
Effugiet tamen haec sceleratus vincula Proteus.
Cum rapies in ius malis ridentem alienis,
Fiet aper, modo avis, modo saxum et, cum volet, arbor.
Si male rem gerere insani est, contra bene, sani:
Putidius multo cerebrum est, mihi crede, Perilli
Dictantis, quod tu numquam rescribere possis.

1. Trace the route taken by Horace and his party in the journey to Brundisium.

2. Write a note, in illustration of Satire II. 8, on the usual arrangements of a Roman dinner-party.

Third Year Students.

Translate, with brief occasional annotations :—

(A.) *Tr.* Clavem mi harunce aedium Laconicam
Iam iube efferri intus : hasce ego aedis occludam hinc foris.
Ph. In tuam custodelam meque et spes meas trado, Tranio.
Tr. Pluma haut interest, patronus an cluens probrior siet :
Homini, quoi nulla in pectorest audacia,
Quamvis desubito facilest facere nequiter :
Verum id videndumst, id viri doctist opus,
Quae designata sint et facta nequiter,
Tranquille cuncta ut provenant et sine malo,
Ni quid patiatur, quam ob rem pigeat vivere.
Sicut ego efficiam, quae facta hic turbavimus,
Profecto ut liqueant omnia et tranquilla sint,
Neque quicquam nobis pariant ex se incommodi.

A remarkable passage in Aristophanes throws light on the beginning of this extract ?

(B.) *Ph.* Unus istic servos est sacerrumus,
Tranio : is vel Herculi conterere quaestum possiet.
Edepol ne me eius patris nunc misere miseret : qui quom istaec sciet
Facta ita, amburet ei misero corculum carbunculus.
Th. Si quidem istaec vera sunt. *Ph.* Quid merear, quamobrem mentiar ?
Advors. Heus vos, ecquis aperit ? *Ph.* Quid istas pultas, ubi nemo intus est ?
Alio credo commissatum abisse : abeamus nunc iam.
Ph. Puere, iamne abis ? *Ph.* Libertas paenulast tergo tuo :
Mihi, nisi ut erum metuam et curem, nihil est qui tergum tegam.

1. Explain the following words and expressions :—

(*a*) Capiundi crines. (*b*) Nec recte dicere : inconciliare : nominare. (*c*) Tarmes : restio : congerro. (*d*) Non pultiphagus opifex operam fecit barbarus. (*e*) Venisti huc extentatum ? (*f*) Saginam caedere : destinare. (*g*) Nihil enim.

2. Express in idiomatic Plautine language :—

(*a*) "So help me heaven." (*b*) "What right have you to touch me ?" (*c*) "Say no more, I beg." (*d*) "Take counsel with yourself."

3. Make as complete a list as you can of the words of Greek origin occurring in Plautus.

4. Illustrate the attitude assumed by Plautus in his dramas towards Rome and Roman life.

(C.) M. Silano L. Norbano consulibus Germanicus Aegyptum proficiscitur cognoscendae antiquitatis. sed cura provinciae praetendebatur, levavitque apertis horreis pretia frugum, multaque in vulgus grata usurpavit : sine milite incedere, pedibus intectis et pari cum Graecis amictu, P. Scipionis aemulatione, quem eadem factitavisse apud Siciliam, quamvis flagrante adhuc Poenorum bello, accepimus. Tiberius cultu habituque eius lenibus verbis perstricto, acerrime increpuit quod contra instituta Augusti non sponte principis Alexandriam introisset. nam Augustus inter alia dominationis arcana, vetitis nisi permissu ingredi senatoribus aut equitibus Romanis inlustribus, seposuit Aegyptum, ne fame urgueret Italiam, quisquis eam provinciam claustraque terrae ac maris quamvis levi praesidio adversum ingentes exercitus insedisset.

Appendix, No. 8.

General Class Examination.

1. Write notes on *cognoscendae antiquitatis* and *dominationis arcana.*

2. "Eadem ceteri, nisi quod Cn. Lentulus separanda Silani materna bona, quippe *alia* parente geniti, reddendaque filio dixit, adnuente Tiberio."

An admirable correction of the word italicised has been proposed?

3. What is known of the functions of the *actor publicus?*

4. Discuss briefly the credibility and fairness of Tacitus as a historian, particularly as illustrated by the account of Germanicus' death and its consequences.

(D.) Ille quoque eversus mons est, quem maximum in oris
progenies Thiae clara supervehitur:
quum Medi peperere novum mare: quumque iuventus
per medium classi barbara navit Athon.
Quid facient crines, quum ferro talia cedant?
Iuppiter, ut Chalybon omne genus pereat,
et qui principio sub terra quaerere venas
institit, ac ferri stringere duritiem.
Abiunctae paullo ante comae mea fata sorores
lugebant, quum se Memnonis Aethiopis
unigena impellens nutantibus aera pennis
obtulit Arsinoes Locridos ales equus.
Isque per aetherias me tollens advolat umbras
et Veneris casto conlocat in gremio.

(E.) Hinc natis mansura fides: hoc nobilis ortu
Nasceris, aequaeva cum majestate creatus,
Nullaque privatae passus contagia sortis.
Omnibus acceptis ultro te regia solum
Protulit; et patrio felix adolescis in ostro;
Membraque, vestitu nunquam temerata profano,
In sacros cecidere sinus.

(F.) Explain the following quotations from Martial:—

1. Post hunc Nestora nec diem rogabo.
2. Haec omnes fenerat una deos.
3. Ludit *popa* nequiore talo.

(G.) Nunc ea videamus, quae contra ab his disputari solent. Sed prius potestis totius eorum rationis quasi fundamenta cognoscere. Componunt igitur primum artem quamdam de iis, quae visa dicimus, eorumque et vim et genera definiunt, in his, quale sit id, quod percipi et comprehendi possit, totidem verbis quot Stoici. Deinde illa exponunt duo, quae quasi contineant omnem hanc quaestionem: quae ita videantur, ut etiam alia eodem modo videri possint nec in iis quidquam intersit, non posse eorum alia percipi, alia non percipi: nihil interesse autem, non modo si omni ex parte eiusdem modi sint, sed etiam si discerni non possint. Quibus positis unius argumenti conclusione tota ab his causa comprehenditur.

(*a*) Write a brief literary introduction to the *Academica.*

(*b*) *Sed quae essent sumenda, ex iis alia pluris esse aestimanda, alia minoris.*

Describe the Stoic doctrine of Ethics, so as to show the apparent error of this statement of Cicero's.

(*c*) Trace the history of Cicero's philosophical opinions.

Translate into Latin Prose:—

Apollo was content to utter his oracles, and left the hearers to make out their interpretation and meaning. So should his priests, poets. They should speak intelligibly indeed, but oracularly, even as all the works of nature are oracular, embodying her laws, and manifesting them, but not spelling them in words, not writing notes and glosses on themselves, not telling you that they know the laws under which they act. They are content to prove their knowledge by fashioning themselves and all their courses according to it: and they leave man to decipher the laws from the living hieroglyphics in which they are written.—J. C. Hare.

Translate into Latin Verse:—

Child of a day, thou knowest not
The tears that overflow thine urn,
The gushing eyes that read thy lot;
Nor if thou knewest, could'st return!

And why the wish? the pure and blest
Watch like thy mother o'er thy sleep:
O peaceful night! O envied rest!
Thou wilt not ever see her weep.

W. S. Landor.

Modern Languages.—*Examiner, Professor Meissner.*

First Year Students.

French.

Translate into French:—

I. Are you going to spend some time in Paris? What have you brought from London? Are you hungry? Is your grandfather eighty years of age? Do you feel inclined to go to Versailles? Do you know this child? Are you not going to put this money into the bank? Where are my children and yours? Have you met Paul nowhere? What towns have you passed between Boulogne and Paris?

II. We long to see the fine days of spring. In vain do I tell him that he is wrong. Having perused the letter, he burned it. She was dressed in the French fashion. The physician wishes me to spend the winter in Madeira. Tell me what you are going to do. Whether he writes to me or not, I shall not write to him. I have not found your sister anywhere. The gentleman who has just gone out is the one of whom I spoke to you. All men are mortal. He is never satisfied with me. He had only five francs about him. Christopher Columbus discovered America towards the end of the fifteenth century. Friendship renders prosperity more complete, and adversity more endurable. In winter the nights are longer than the days, in summer they are shorter than the days. Old people are very fond of heat. Napoleon took Malta without striking a blow. It would ill become me to find fault with your arrangements.

III. Lafitte, a celebrated French financier, was born of humble parents. Having obtained employment in a banking-house, he rose from a clerk to be cashier, partner, and at length, head of the most eminent bank in Paris. Possessed of this conspicuous position and of

Appendix, No. 8.

General Class Examination.

great wealth, he speedily became a member of the Chamber of Deputies. His advocacy of liberal principles rendered him so popular that, when Charles X. was driven from the throne, and the great majority of the public men of the day were for establishing a republic, M. Lafitte, by his single voice, could re-create the monarchy and establish a monarch.

Translate into English:—

Connaissez-vous cette partie de la France que l'on a surnommée son jardin? ce pays où l'on respire un air pudans les plaines verdoyantes arrosées par un grand fleuve? Si vous avez traversé dans les mois d'été la belle Tourainer vous aurez longtemps suivi avec enchantement la Loire paisible; vous aurez regretté de ne pouvoir déterminer entre les deux rives celle où vous choisiriez votre demeure.

Lorsqu'on accompagne le flot jaune et lent du beau fleuve, on ne cesse de perdre ses regards dans les riants détails de la rive droite. Des vallons peuplés de jolies maisons blanches qu'entourent des bosquets, des coteaux jaunis par les vignes ou blanchis par les fleurs du cerisier, de vieux murs couverts de chèvrefeuilles naissants, des jardins de roses d'où sort tout à coup une tour élancée, tout rapelle la fécondité de la terre ou l'ancienneté de ses monuments, et tout intéresse dans les œuvres de ses habitants industrieux. Rien ne leur est inutile: il semble que dans leur amour d'une si belle patrie, ils n'aient pas voulu perdre le moindre espace de son terrain, le plus léger grain de son sable. Le rocher même est habité: des familles de vignerons respirent dans ces profonds souterrains, arbritées dans la nuit par la terre nourricière qu'elles cultivent laborieusement durant le jour.—ALFRED DE VIGNY.

GERMAN.

Translate into German:—

He would do it, if I asked him. I have not met him anywhere. Read slowly. The books lie upon the table. Would you answer, if he were to write to you? We went home. Would you accompany me, if I went? He said that he knew me. A messenger has brought a letter. I should gladly come, if I could. I should stay at home, if I were not obliged to pay a visit. I should go to Germany, if I could speak German. He will be obliged to obey. We rise early. It becomes dark, when the sun sets. We went in. The thief has run away. We shall expect you next week. The hotter the days, the more pleasant the nights. I shall wait for a better opportunity. Will you lend me your grammar? I have mislaid mine. A French family lives in this house. Have you heard of that? To whom did you lend your pen-knife? It is half-past six. The railroad goes through a long tunnel. The village lies behind the hill. Wait, till I have finished my work. Although his situation is very lucrative, yet he is going to give it up as his health has suffered from excessive work.

Translate into English:—

Bald darauf zog Otto nach Italien, um die Beſitzungen der griechiſchen Kaiſer in Unteritalien, auf welche er wegen ſeiner Heirath mit der Theophano Anſprüche machte, in Beſitz zu nehmen. Aber die griechiſchen Kaiſer verbanden ſich mit den Arabern, die in Sicilien Eroberungen gemacht hatten. Anfangs hatte Otto Vortheile über ſie und gewann die wichtige Stadt Tarent. Dann aber, zu kühn gemacht, ließ er ſich 982 in Calabrien ſüdlich von Cotrone in einen Hinterhalt locken und wurde gänzlich geſchlagen.

Die Niederlage war hart, der Herzog Udo von Franken, nebſt vielen Grafen und Herren, und ſogar der Biſchof Heinrich von Augsburg und der Abt Werner von Fulda, blieben auf dem Schlachtfelde, woraus wir ſehen, daß auch die Geiſtlichen damals mit ins Feld zogen. Otto ſelbſt entkam wie durch ein Wunder, indem er mit ſeinem Pferde ins Meer ſetzte und an ein griechiſches Schiff ſchwamm. Die Schiffer kannten ihn nicht; als er in Gefahr kam, erkannt zu werden, rettete er ſich zum zweiten Male durch Schwimmen aus Land und kam zu den Seinigen nach Roſſano.—KOHLRAUSCH.

Appendix, No. 8.

General Class Examination.

SECOND YEAR STUDENTS.

FRENCH.

Translate into French:

I. I wish to speak to you before your departure. He boasted of having rendered you important services. What has become of the newspapers which I have lent to you? I like square tables better than round tables. This ink is too thick, put some water into it. You have an excellent dictionary, will you lend it to me? I shall not lend it to you, because I want it myself. These are matters of which we must think seriously. If anyone asks for me, tell him that I shall be at home at five o'clock. If it should be fine this evening and you should have a mind to take a walk, call for me at six o'clock precisely. From what you say I see that this affair is more important than I thought. You begin a score of things without finishing any. We heard the bombs bursting with a terrible noise. She is much to be pitied.

II. Every morning our soldiers, and especially our cavalry, had to go to a distance in search of provisions for the day and the following day; and as the neighbourhood of Moscow was more and more stripped, they had to go every day to a greater distance. Men and horses returned exhausted, that is those who did return, for as the paysants disputed to us every measure of rye, every truss of hay, there were continual fights, continual losses. In this wilderness Napoleon ordered the purchase of twenty thousand horses, he commanded that two months' forage and provisions should be found in a country, in which the most distant and perilous raids produced scarcely food sufficient for a day. Some of those around him were astonished to hear him give orders so impossible to execute; but as has been seen before, he gave them in order to deceive his enemies.

III. At a period when England was torn by civil war and a prey to the cruelty of the Danes, a man appeared, destined by Providence to avenge his country, to defend his rights, to enlighten the age in which he lived, and to adorn humanity. Alfred the Great was the fourth son of Ethelwolf, King of England; he succeeded to the throne on the death of his brother Ethelred, in the year 871. After several actions with the Danes, the unfortunate Alfred was obliged to seek his safety by flight, and retire to the cottage of one of his peasants, where he remained several months as a servant. He afterwards withdrew to the Isle of Athelney, in Somersetshire, where having heard that the Earl of Devonshire had obtained a great victory over the Danes, and had taken their magical standard, he disguised himself as a harper, and was admitted to the principal generals, who praised his talent for music.—ADDISON.

Appendix, No. 8,

General Class Examination.

PHILOLOGICAL QUESTIONS.

1. Give the etymologies of *façon, rançon, poison,* and account for the final *n.*

2. State the general law of the permutation of the mutes.

3. Explain the form *faudra,* accounting for all the vowel and consonant changes, and the origin of the termination.

4. Account for the origin of the double forms *créance* and *croyance.*

Translate into English:

Ainsi, Paris le distrait de Pétersbourg. Ses affaires encore amoncelées, et les courriers qui, dans les premiers jours, se succèdent sans interruption, l'aident à attendre. Mais la promptitude de son travail en a bientôt épuisé la matière. Bientôt même ses estafettes, qui d'abord arrivaient de France en quatorze jours, s'arrêtent. Quelques postes militaires placés dans quatre villes en cendres et dans quelques maisons de bois grossièrement palissadées ne suffisaient pas pour garder une route de quatre-vingt-treize lieues; car on n'avait pu établir que quelques échelons, toujours trop espacés, sur une si longue échelle. Cette ligne d'opération, trop allongée, se brisait partout où l'ennemi la touchait; pour la rompre, des paysans mêlés à quelques Cosaks suffisaient.—SEGUR.

GERMAN.

Translate into German:

I. Which language do you like best? Be sure to come. Perhaps you have misunderstood me. In spite of the bad weather I must set out on my journey. I opened the letter without having looked at the address. The king left the town, after having provided it with a sufficient garrison. My German teacher comes every other day. Notwithstanding the strictest investigation the truth has not been brought out. It is true he is young, but he has had much experience. The merchant has not been able to satisfy his creditors. A chapel stands on the spot where Cicero pretends to have found the tomb of Archimedes. A statue of marble has been erected to the memory of the poet.

II. The street in which our house was situated, we had heard called the *Hirschgraben;* but as we saw neither moat nor stags, we wished to have an explanation of this expression. We were then told, that our house stood on a spot which formerly had been situated outside the town, and that in the place where at present the street was, a moat had formerly existed, in which a number of stags had been kept. These animals had been here preserved and fed, because according to old custom the senate had every year eaten a stag at a public dinner.

Translate into English:

III. Der Krönungstag brach endlich an, den 3. April 1764; das Wetter war günſtig, und alle Menſchen in Bewegung. Man hatte mir nebſt mehreren Verwandten und Freunden in dem Römer ſelbſt, in einem der obern Stockwerke, einen guten Platz angewieſen, wo wir das Ganze vollkommen überſehen konnten. Mit dem Früheſten begaben wir uns an Ort und Stelle und beſchauten nunmehr von oben, wie in der Vogelperſpective, die Anſtalten, die wir Tags vorher in nähern Augenſchein genommen hatten. Der große Platz füllte ſich nach und nach, und das Wogen und Drängen ward immer ſtärker und bewegter, weil die Menge wo möglich immer nach der Gegend hinſtrebte, wo ein neuer Auftritt erſchien, und etwas Beſonderes angekündigt wurde.—GOETHE.

IV. Munter fördert ſeine Schritte
Fern im wilden Forſt der Wandrer
Nach der lieben Heimathhütte.
Blökend ziehen heim die Schaafe,
Und der Rinder
Breitgeſtirnte, glatte Schaaren
Kommen brüllend,
Die gewohnten Ställe füllend.
Schwer herein
Schwankt der Wagen,
Kornbeladen,
Bunt von Farben
Auf den Garben
Liegt der Kranz,
Und das junge Volk der Schnitter
Fliegt zum Tanz.—
Markt und Straßen werden ſtiller,
Um des Licht's geſell'ge Flamme
Sammeln ſich die Hausbewohner,
Und das Stadtthor ſchließt ſich knarrend.
Schwarz bedecket
Sich die Erde;
Doch den ſichern Bürger ſchrecket
Nicht die Nacht,
Die den Böſen gräßlich wecket,
Denn das Auge des Geſetzes wacht.—SCHILLER.

THIRD YEAR STUDENTS.

FRENCH.

Translate into French:

The English are strongly gifted with the rural feeling. This passion seems inherent in them. Even the inhabitants of cities, born and brought up among brick walls and bustling streets, enter with facility into rural habits, and evince a turn for rural occupation. The merchant has his snug retreat in the vicinity of the metropolis, when he often displays as much pride and zeal in the cultivation of his flower-garden, and the maturing of his fruits, as he does in the conduct of his business and the success of his commercial enterprises. Those who see the Englishman only in town, are apt to form an unfavourable opinion of his social character.—WASHINGTON IRVING.

Translate into English:

Tresvait la noit, e apert la clere albe.
Li empereres mult fierement chevalchet,
Par mi cel host suvent e menu reguarded,
"Seignurs barons, dist li emperere Carles,
Veez les porz e les destreiz passages,
Kar me jugez ki ert en la rere-guarde."
Guenes respunt: "Rollanz, cist miens fillastre;
N'avez baron de si grant vasselage."

Appendix, No. 8.

General Class Examination.

Quant l'ot li reis, fierement le reguardet,
Si li ad dit: "Vos estes vifs diables;
El cors vos est entrée mortel rage.
E ki serat devant mei en l'ans-guarde?"
Guenes respunt: "Oger de Denemarche;
N'avez barun ki mielz de lui la facet."

AOI.—ROLAND, 737—750.

LITERARY QUESTIONS.

1. Who were *Les enfants Sans-Souci* and *Les clercs de la Basoche?*
2. Give a brief account of the gradual employment of Prose in dramatic composition.
3. What is meant by a comédiè larmoyante? Mention the first piece of this kind.
4. Give a brief account, in French, of Pierre Corneille.

GERMAN.

Translate into German:

Chatham, at the time of his decease, had not, in both Houses of Parliament, ten personal adherents. Half the public men of the age had been estranged from him by his errors, and the other half by the exertions which he had made to repair his errors. His last speech had been an attack at once on the policy pursued by the government, and on the policy recommended by the opposition. But death restored him to his old place in the affection of his country. Who could hear unmoved of the fall of that which had been so great, and which had stood so long? The circumstances, too, seemed rather to belong to the tragic stage than to real life.

Translate into English:

Iteniwiu maere ſich huoben über Rin.
Man ſeite, das da waere manic magedin.
Der dahte im eine werben des künic Gunthers muot.
Das duhte ſine recken und die herren alle guot.

Es was ein küniginne geſeſſen über ſe,
Ir geliche was deheiniu me.
Si was unmaßen ſchoene; vil michel was ir kraft.
Si ſchoß mit ſnellen degnen umbe minne den ſchaft.

Den ſtein warf ſi verre; dar nach ſi witen ſprane.
Swer ir minne gerte, der muoſe ane wanc
Driu ſpil an gewinnen der vrowen wol geborn.
Gebraſt im an eime, er het das houbet verlorn.

MATHEMATICS.—*Examiner, Professor Purser.*

FIRST YEAR STUDENTS.

ALGEBRA, &c.

1. If $\frac{x}{y}=\frac{a}{b}$; prove that $\frac{xy}{x^2-y^2}=\frac{ab}{a^2-b^2}$.

2. Solve the equations

$$(\alpha)\ \left(x-1\right)^2=\frac{4x}{3}.$$

$$(\beta)\ 2\sqrt{x+2}-\sqrt{3x+4}=\sqrt{x-6}.$$

3. Show that if the expression x^2+px+q vanishes when $x=a$, this expression contains $x-a$ as a factor.

Examine when the roots of a quadratic are impossible.

4. Given $ax+by=c \quad mx+ny=p$; find x and y.

Given $x^2+xy=40 \quad xy-y^2=6$; find x and y

5. A man rowed up and down a certain reach of a river where the current was flowing at two miles an hour. He afterwards rowed up and down another reach of the same length where the current was flowing at one mile an hour. The second row only took five-eighths of the time the first took; find how fast the man rowed through the water.

6. Express in the simplest forms

$$\sqrt{13-4\sqrt{3}} \qquad \frac{\sqrt{9-2\sqrt{20}}}{\sqrt{9+2\sqrt{20}}}$$

7. AB is the diameter of a semicircle, P a variable point on its circumference; find the position of P when $aPA+bPB$ is a maximum, a and b being positive numbers.

8. Define a determinant. Show that, if two rows or columns are the same, the determinant vanishes identically. Define the minors, and investigate the value of the determinant of which the minors are the constituents.

9. Prove that the determinant

$$\begin{vmatrix} a & b & c & d \\ b & c & d & a \\ c & d & a & b \\ d & a & b & c \end{vmatrix} = \{(b+d)^2-(a+c)^2\}\{(b-d)^2+(a-c)^2\}$$

10. What is meant by a convergent series? Prove the following series convergent:

$$\frac{1}{1^r}+\frac{1}{2^r}+\frac{1}{3^r}+\&c. \qquad r>1$$

$$\frac{\log 1}{1^2}+\frac{\log 2}{2^2}+\frac{\log 3}{3^2}+\&c.$$

$$\sin x+\tfrac{1}{2}\sin 2x+\tfrac{1}{3}\sin 3x+\&c.$$

11. Assuming the exponential series investigate that for $\log(1+x)$; given $\log 11=1{\cdot}0413927$; calculate $\log 12$ to seven places; the modulus $=\cdot 43429448$.

CONIC SECTIONS.

1. If AA′ is the line in which a fixed section of a cone is met by a plane through the axis of the cone perpendicular to the section PN, a perpendicular let fall from a point on the curve of section upon AA′; show that $PN^2 : AN.A'N=$constant.

2. If the ordinate and tangent to a central conic meet the diameter CT in V and T; prove that $CV.CT=CP^2$.

Appendix, No. 8.

General Class Examination.

3. If two chords of a hyperbola intersect, the rectangles contained by their segments are proportional to the squares of the parallel semi-diameters.

4. A variable chord is drawn through a fixed point P meeting a conic in XY, and a point Q chosen on it so that $PQ^2 = PX.PY$; find the locus of Q.

5. TP and TQ are tangents to a central conic; PQ produced meets the directrices in RR′; prove that $RP.R'P : RQ.R'Q = TP^2 : TQ^2$.

GEOMETRY AND TRIGONOMETRY.

1. In any triangle the sum of the squares of any two sides is equal to twice the square of half the base, together with twice the square of the line drawn from the vertex to bisect the base.

2. Angles in the same segment of a circle are equal to each other.

Prove this and hence considering a tangent as the limit of a chord joining points indefinitely near, show that each angle contained by a tangent to a circle and a chord through the point of contact is equal to the angle in the alternate segment.

3. Define proportion. Prove that the bisector of the vertical angle of a triangle divides the base into segments which bear to each other the ratio of the adjacent sides.

Given base of a triangle and ratio of sides, find the locus of vertex.

4. Find a mean proportional between two given lines.

Prove that if the sides of a right-angled triangle are in continued proportion, the hypotenuse is divided by the perpendicular from the right angle in extreme and mean ratio.

5. Prove that $\cos(A+B) = \cos A \cos B - \sin A \sin B$.

Hence find cos 75°.

6. Prove that

$$\sin \tfrac{1}{2}A = \sqrt{\frac{(s-b)(s-c)}{bc}}.$$

7. Given $a = 8{\cdot}376$ $b = 6{\cdot}041$ $c = 5{\cdot}185$; calculate the area.

8. Given in a right-angled triangle $a = 12{\cdot}34$ $c = 17{\cdot}01$; calculate the angles and the other side.

9. If two straight lines are parallel and one of them be perpendicular to a plane the other will be perpendicular to the same plane.

10. Find the volume of the frustum of a prism.

Find the area of the curved surface of a cone.

11. Prove that in a right-angled spherical triangle

$$\cos c = \cos a \cos b \quad \cos A = \cos a \sin B.$$

Reciprocate these theorems.

12. Prove the expression for the area of a small circle on the sphere.

Calculate the ratio of the area of the Arctic circle to that of the Torrid zone. The latitude of the Arctic circle is 66° 32′.

13. Given base and area of a spherical triangle, find the locus of vertex.

Show that the perpendicular let fall from one extremity of the base upon the arc joining the middle points of the sides is the complement of the radius of Lexell's locus.

Calculate this radius if the given base is an arc of 50° and the given area is one-tenth that of the sphere.

14. Express the volume of a parallelepiped in terms of the three edges which it meets, and their inclinations to each other. *Appendix, No. 8.*

15. Prove that if ϕ be the angle between the bisector of the vertical angle of a spherical triangle and the perpendicular let fall from the vertex on the base General Class Examination.

$$\tan\phi = \cot\frac{C}{2}\,\frac{\sin\frac{1}{2}(a-b)}{\sin\frac{1}{2}(a+b)}$$

Second Year Students.

CO-ORDINATE GEOMETRY.

1. The co-ordinates of A are 1 and -1, of B are 3 and 2;

Find those of the middle point of AB and the area the triangle AB subtends at the origin; find also the equation of the line joining AB and where it meets the line $x=5$.

2. Interpret the following equations and give diagrams—

$$x+2=0 \quad x^2-xy-2y^2=0 \quad x^2+y^2=y \quad x^2-y^2=1.$$

Write down the equations of a circle of radius 3 touching the co-ordinate axes.

3. Investigate by the method of co-ordinates the locus of the vertex of a triangle

1° given base and difference of squares at sides;
2° given base and sum of sides.

4. Find the equation of the tangent to the ellipse

$$\frac{x^2}{a^2}+\frac{y^2}{b^2}=1.$$

5. Find the equation of the normal to the parabola $y^2=4mx$ at a given point, and show that the sub-normal is constant.

6. Investigate the functions of the coefficients of a conic which are unaltered by transformation of co-ordinates. Hence determine the condition that two conics be similar.

7. Find the locus of the pole of a given line with respect to a system of confocal conics.

8. Find the equation of the circle circumscribing the triangle joining three points on an ellipse whose eccentric angles are α, β, γ.

9. A parabola is drawn with a given focus subtending a constant angle at a certain fixed point; find its envelope.

10. Investigate the equation of the rectangular hyperbola having contact of the third order with an ellipse at a given point.

Prove that the locus of the centres of all rectangular hyperbolæ having such contact is given by the equation

$$\left(x^2+y^2\right)^2=\left(a^2+b^2\right)^2\left(\frac{x^2}{a^2}+\frac{y^2}{b^2}\right)$$

11. Find the condition that the conic represented by the equation $l\beta\gamma+m\gamma\alpha+n\alpha\beta=0$ should be, 1° an equilateral hyperbola, 2° a parabola.

If the equilateral hyperbola touch the circle circumscribing the triangle of reference at one of the angular points, determine its equation completely.

12. Find in terms of a single parameter the equation of the tangent at any point of the conic $LM=R^2$.

A variable tangent to a conic meets two fixed tangents and the points of meeting are joined transversely with the points of contact of the fixed tangents, find the locus of the intersections of the joining lines.

Appendix, No. 8.

General Class Examination.

DIFFERENTIAL AND INTEGRAL CALCULUS.

1. Investigate from first principles

$$\frac{d\cos x}{dx} \qquad \frac{d\sin^{-1}x}{dx} \qquad \frac{d}{dx}\left(\frac{1}{x^3}\right)$$

2. Differentiate

$$x\tan\frac{x}{2} \qquad \frac{1+x^2}{\sqrt{1-x^2}} \qquad \theta\tan\theta+\log\cos\theta.$$

3. Find for what values of x

$$\frac{1+x-x^2}{\sqrt{1+2x}}$$

is a maximum or minimum.

4. Apply the Integral Calculus to find

1° the area cut off from a parabola by a line perpendicular to the axis.

2° the volume of a cone.

3° the surface of the portion of a sphere intercepted between two parallel planes.

5. Required

$$\int\frac{dx}{3x+1} \qquad \int\frac{dx}{x^2-2} \qquad \int\sec^2\frac{x}{2}dx.$$

6. Prove the expressions for the radius of curvature in terms

1° of s and ω 2° of p and ω 3° of r and p

apply to the cycloid, ellipse, and lemniscate respectively.

7. Examine the character of the curve

$$y^2=ax^3+bx^2y+cxy^3+cy^3+\text{higher terms}$$

in the neighbourhood of the origin.

PT is a variable tangent to the curve $ay^2=x^3$ meeting the axis of x in T, and the other branch in Q, show that PT : QT=const.=8 : 1.

8. Investigate the expression for the radius of curvature of a roulette. A circle rolls upon a right line, what points invariably connected with the circle will momentarily be describing right lines.

9. Required

$$\int\frac{dx}{x^3\sqrt{1-x^2}} \qquad \int\frac{x^2dx}{x^4+x^2-2}$$

10. If we denote

$$\int_0^{\frac{\pi}{2}}\sin^n x dx \text{ by } A_n\text{; prove that } A_n=\frac{n-1}{n}A_{n-2}$$

Hence prove Wallis's formula for π.

11. Explain how the envelope of a curve is found whose equation contains one arbitrary parameter.

Ex. From a fixed point two lines containing a given angle are drawn to meet a given line; find the envelope of the circle circumscribing the triangle so formed.

12. Give the different methods you are acquainted with for solving a biquadratic equation, and examine in each case the connexion between the roots of the given equation and those of the reducing cubic.

NATURAL PHILOSOPHY.—*Examiner, Professor Everett.*

Appendix, No. 8.

General Class Examination.

SECOND YEAR ARTS AND FIRST YEAR ENGINEERING STUDENTS.

EXPERIMENTAL PHYSICS.

[No credit will be given for numerical answers unaccompanied by work. The books must not be mutilated.]

1. Explain the necessity for applying a correction to the barometer for temperature.

2. If the specific heat of mercury is $\frac{1}{30}$, find the temperature obtained by mixing mercury at 20° with water at 10°, in the proportion of five grammes of the former to one of the latter.

3. Explain why the bubble in a spirit level gets smaller with increase of temperature.

4. What is meant by "the mechanical equivalent of a unit of heat." What unit of heat is usually employed in connexion with the gramme and the Centigrade scale? What is the equivalent (in ergs) of this unit?

5. What is meant by "the critical temperature" of a gas (in Dr. Andrews' sense)? For instance, what are the facts expressed by the statement that the critical temperature of carbonic acid is 30·92 C.?

6. What is the unit quantity of electricity in electrostatics; and what is the unit current in electro-magnetics?

7. What is meant by a line of force, (1) in electro-statics, (2) in magnetism? What is meant by a tube of force, and what is the law of variation of force along such a tube?

8. When it is stated that the electromotive force generated by the motion of a conductor in a magnetic field, is equal to the number of tubes cut through per unit time, how are the tubes supposed to be drawn?

9. It is found that the current of a certain battery, when the poles are connected by a metallic conductor of a resistance of 20 ohms, is reduced to two-thirds of its amount by increasing this resistance to 40 ohms. Find the resistance of the battery.

10. Explain Wheatstone's bridge.

11. What is the effect of points projecting from a charged conductor; and what is the effect of points connected with the earth, in the neighbourhood of a charged conductor?

12. What is the nature of a coefficient of elasticity, and in what units can it be accurately expressed?

13. Point out the connexion between absolute units of force and gravitation units of force. How many dynes are equal to the weight of a gramme? How is the erg defined?

14. Define the "height of the homogeneous atmosphere" or the "pressure-height" at a point in the air; and show that it is the same at all heights if the temperature is the same.

15. Write down the general formula for the velocity of sound in any substance; and hence show that the velocity in air is independent of the barometric pressure.

16. Under what circumstances do "beats" occur? What rule determines their number? What is the connexion between beats and discord, according to the theory of Helmholtz?

17. Indicate the approximate positions of the nodes and antinodes in open and in stopped pipes, for the fundamental tone and the first overtone in each case.

Appendix, No. 8.

General Class Examination.

18. What are the two rival theories respecting the nature of light? How do they respectively explain refraction; and how does Foucault's experiment on the velocity of light in water bear on the controversy?

19. Explain the method adopted by Fizeau and Cornu for measuring the velocity of light in air.

20. An object is held at different distances in front of a concave mirror. Describe the appearances presented, and specify the distance or distances at which these appearances change.

21. Give a geometrical construction for the position and size of the image formed by a convex lens, its focal length being given.

Second Year Arts and Engineering Students.

MATHEMATICAL PHYSICS.

PASS PAPER.

[No credit will be given for numerical answers unaccompanied by work. The book must not be mutilated.]

1. A uniform straight lever 10 feet long, balances at a point 3 feet from one end, when 12 pounds are hung from this end, and an unknown weight from the other. The lever itself weighs 8 pounds. Find the unknown weight.

2. Weights of 2, 3, 4, and 5 pounds are hung at points distant respectively 1, 2, 3, and 4 feet from one end of a lever whose weight may be neglected. Find the point about which the lever thus weighted will balance.

3. Find, in position and magnitude, the resultant of two parallel forces in opposite directions, their magnitudes being represented by the numbers 12 and 18, and the distance between their lines of action being 5 feet.

4. Investigate theoretically the magnitude and position of the resultant of two parallel forces in the same direction.

5. Investigate the ratio of the power to the weight, for equilibrium, in the inclined plane, when the power acts parallel to the plane.

6. Write down the formulae for the velocity acquired and space described, in time t, by a falling body, having an initial downward velocity V. From these two formulae deduce the formula

$$\tfrac{1}{2}v^2 - \tfrac{1}{2}V^2 = gs.$$

7. A ray inclined at 30° to the vertical, falls on the surface of still water and is refracted into it. Find the sine of the angle of refraction.

8. It is required to throw upon a screen a sharp image of an object 9 feet distant from it. If the lens is twice as far from the screen as from the object, what must be its focal length.

9. Prove that the distances of conjugate foci from a spherical mirror are directly as their distances from the centre of curvature.

10. A glass ball, of specific gravity 3, and weighing 100 grammes in air, is weighed first in water and then in alcohol of specific gravity ·8, what will be its apparent weights in these liquids?

11. What is the rule for finding the volume of a body, when its weights in air and water are given in grammes?

12. State Kepler's three laws of planetary motion.

UPPER DIVISION.

[No credit will be given for numerical answers unaccompanied by work. The books must not be mutilated.]

1. A straight lever 10 feet long, weighs 10 lbs., and its centre of gravity is 4ft. from one end. What weight at this end will support 100 lbs. at the other, when the lever is supported at the middle of its length?

2. A lever is to be cut from a bar of iron weighing 3 lbs. per ft. What must be its length that it may balance about a point 2 ft. from one end when weighted at this end with 50 lbs.?

3. A straight lever without weight is acted on by 4 parallel forces, at the following distances from one end:—

At 1 ft. a force of 2 upwards,
2 „ „ „ 3 downwards,
3 „ „ „ 4 upwards,
4 „ „ „ 5 downwards;

Where must the fulcrum be placed that the lever may be in equilibrium; and what will be the pressure on the fulcrum?

4. Assuming the "parallelogram of forces" as regards direction, prove it as regards magnitude.

5. A triangle is formed by joining the middle points of three of the sides of a square. Find the distance of the centre of gravity of the remainder from the remaining side.

6. A sphere of glass weighs M grammes in air and m in cold water. Find its radius.

7. The weight of a piece of wood in air is 4 lbs., of a piece of lead in water, 4 lbs., and of the wood and lead together in water, 3 lbs. Required the specific gravity of the wood.

8. Investigate the direction and magnitude of the least force that will draw a heavy body up an inclined plane with friction.

9. A uniform door, turning on horizontal hinges, is held open at an inclination θ to the horizon, by means of a horizontal string attached to the middle of the edge remote from the hinges, the string being perpendicular to the line of the hinges. Find the tension of the string.

10. Define the unit of force, and unit of work, based on the centimetre, gramme, and second, as fundamental units of length, mass, and time.

11. Prove that, in the case of a body falling freely under the action of gravity, the work done in communicating a velocity v to a mass m is $\frac{1}{2} mv^2$.

12. A force of F dynes acts upon a mass of M grammes for t seconds. Find the velocity acquired and the distance passed over.

13. A ball whose mass is m grammes, is discharged from a gun with a velocity of v centimetres per second. Find the mean force exerted in propelling the ball through the barrel, the length of the latter being l centimetres.

14. How do you compute the amount of pressure on an area immersed in a liquid; and how do you construct for the point of application of this pressure?

15. Give a strict definition of "the meridian" at a place, not assuming the earth to be a solid of revolution. Also define the latitude of a place. What is the latitude of a place in the Northern Hemisphere at which a star of north declination δ has true zenith distance z?

16. State Kepler's three laws of planetary motion, and Newton's deductions from them.

17. A body falling from rest describes one-third of the whole space in the last second. Determine the whole distance, and the whole time of descent.

Appendix, No. 8.

General Class Examination.

18. Investigate the relation between conjugate focal distances from a spherical refracting surface.

19. Investigate the position of the principal focus of a refracting sphere.

20. What will be the diameter of the image of the sun formed by a concave reflector of focal length f, the sun's apparent diameter being half a degree?

21. Show that, to obtain achromatism by a lens of two pieces, the focal lengths must be directly as the dispersive powers.

Third Year Arts Students.

MATHEMATICAL PHYSICS.

HONOR CLASS.

1. Prove the formula $\mu p = C$ for a ray traversing a medium in which μ is a function of distance from a given point.

2. Prove that the moments of inertia of a plane lamina about two rectangular axes in its plane, are together equal to the moment of inertia round an axis perpendicular to them both at their point of intersection.

3. Write down the equations which express D'Alembert's principle; and hence show that the motion of the centre of mass is not altered by shifting any of the applied forces parallel to themselves.

4. Show that if a heavy uniform cord rests without friction on a smooth surface, the difference of tensions at any two points of its length, is equal to the difference of their heights multiplied by the weight of unit length.

5. Prove the equation $Tp = C$ for a cord acted on by a central force.

6. Investigate the equation to the common catenary.

7. Prove that the surface integral of normal attraction over a closed surface is $4\pi M$.

8. Apply the result of (7) to find the attraction at any point due to a spherical shell in which density is a function of distance from the centre. Also apply it to find the attraction at any point due to a cylindrical shell in which density is a function of distance from the axis.

9. Demonstrate the analogy between the velocity of an arbitrary point of a rigid body, and the moment of a system of forces round an arbitrary point.

10. Investigate the resultant of two equal and opposite velocities of rotation round parallel axes.

11. Prove that forces acting along the sides of a closed polygon and represented by them, are equivalent to a couple.

12. Prove the formula for central forces—

$$P = \tfrac{1}{2}h^2 \frac{d}{dr}\frac{1}{p^2}.$$

13. Prove that the velocity at any point of an orbit, is equal to that which would be acquired by falling through a height equal to one-fourth of the chord of curvature (through centre of force) at the point, under the influence of a constant force equal to the force at the point.

14. Find the orbit when the law of force is that of the direct distance.

15. Prove that, in any motion of a particle under the influence of forces which are functions of the co-ordinates of the particle, the work done is equal to the increment of $\frac{1}{2}v^2$.

16. Prove that the range of a projectile on an inclined plane through the point of projection, is the same for directions of projection which are equally inclined to the bisector of the angle between the plane and the vertical.

CHEMISTRY.—*Examiner, Dr. Andrews.*

1. How is the maximum density point of water accurately determined?
2. How would you find by experiment the coefficient of dilatation for a gas under a constant volume?
3. Give an account of the process of regelation.
4. State in what way it is proved that there are incandescent vapours of certain metals in the sun's atmosphere.
5. Give some account of the properties of the ultra-violet rays of the solar spectrum.
6. Describe the method of preparing the peroxide of hydrogen, and contrast its properties with those of ozone.
7. Describe the preparation and properties of nitric oxide gas.
8. Give an account of the three modifications of phosphoric acid.
9. In what proportions do gaseous bodies combine?
10. How is acetylene prepared, and what is its composition? State also how its presence may be discovered.
11. What are the tests for the ferrous and ferric salts?
12. What is the composition of steel, and how is it prepared?
13. What are the tests for copper, silver, and gold?
14. Describe what is meant by monatomic, diatomic, triatomic, and hexatomic alcohols, and illustrate your statement by examples.
15. Give a general account of the paraffins.
16. Give an account of dextro-glucose, levulo-glucose, how they can be obtained, and their distinctive properties.
17. Describe the properties of *any* vegetable acid.

CIVIL ENGINEERING.—*Examiner, Professor Fuller.*

FIRST YEAR STUDENTS.

GEOMETRICAL DRAWING.

1. A line is given by its projections, find its traces upon the planes of projection.
2. The traces of a plane are given, and the horizontal projection of a point in that plane, find its vertical projection.
3. Two lines that intersect are given by their projections, find the traces of the plane in which they are situated.
4. A line is given by its projections. Find the traces of a plane that passes through the line, and make an angle of 60° with the horizontal plane.
5. A hexagon of 1″ side lies in a plane inclined at 30° to the horizontal plane, one of its sides makes an angle of 15° with the horizontal plane; draw its projections.
6. Draw the plan and elevation of a circle when two of its diameters which are at right angles are inclined to the horizontal plane at angles of 30°.
7. Draw a cube of 2″ edge when the planes of two of its faces are inclined at 45° and 70° to the horizontal plane.
8. Draw the shadow cast by the above upon the planes of projection, the projections of the rays of light making angles of 45° with the axis.

Appendix, No. 8.

General Class Examination.

9. The traces of a plane are given, draw a line situated in that plane, and find the angles it makes with both planes of projection.

10. Draw the plan of a line 2″ long, and inclined to the horizontal plane at 30°, and an elevation of it on a plane not parallel to it.

11. Draw two planes by their traces inclined to each other at 120°, neither of the planes to be perpendicular to the planes of projection.

12. Draw the projections of a tetrahedron when three of its corners are 1″, 1½″ and 2″ above the horizontal plane.

13. A prism with hexagonal ends rests with one face on the horizontal plane, and its axis inclined at 30° to the vertical plane, construct its projections and those of its shadow.

14. A pyramid with square base is cut by a plane whose traces are given; find the projections of the plane of intersection and the true form of that section.

15. Draw an isometrical projection of a prism with hexagonal ends.

Second Year Students.

Surveying, Levelling, and Mapping.

1. Adjustments of the Y Theodolite:

(*a*) For the prevention of "parallax."
(*b*) For placing the line of collimation in or parallel to the axis of the telescope.
(*c*) For placing the bubble of the spirit level attached to the telescope in the middle of its run when the line of collimation is level.
(*d*) For the spirit levels attached to the circular plates.
(*e*) For the index of the vertical arc.

2. Describe the sextant, its principle, and the adjustments it requires.

3. Prove that in the Dumpy level it is not necessary that the line of collimation be situated accurately in the axis of the telescope.

4. Explain the practical method of adjusting the line of collimation in the Dumpy level.

5. Explain the correction for curvature in levelling, and find its amount at the distance of 50 chains.

6. Describe the method of setting out, by means of the theodolite, a circular arc to join two straight lines.

---

7. Demonstrate the formulae for estimating the contents of an embankment or cutting, known as "mean height," "mean area," "prismoidal."

8. Calculate the surface of slopes in the following case:—Heights, 66 feet apart, 25–30, Slopes 1½ to 1.

9. Explain the meaning of the following terms used in Architecture:—Abacus — Architrave — Flying Buttress — Basilica — Bay Window — Breast-Summer — Capital—Corbel—Cornice—Fascia—Frieze—Entablature.

10. In what styles of Architecture are the Parthenon—Erechtheium —Pantheon—St. Peter's, Rome, and St. Paul's, London?

11. Sketch a King truss, and name the different pieces of which it is composed.

12. Explain and sketch the arrangements of a sash and casement window.

13. Explain the terms, "coursing spiral," "heading spiral," "face line," and shew their position upon the plan of the suffit of a skew arch, and its development.

14. Show how the angle between the face joints and the coursing joints of a skew arch can be found, when the centreing is fixed.

Second and Third Year Students.

OFFICE AND FIELD WORK.

Second Year Students.

1. Draw the projections of a tetrahedron of $1\frac{1}{2}''$ edge, when two of its adjacent edges make angles of 30° and 45° with the horizontal plane.

2. Draw the projections of the intersection of a cone and a sphere, the axis of the cone not passing through the centre of the sphere.

Second and Third Year Students.

4. Take out the area of the fields shown in the accompanying map, and check the sum of the areas by the area of the whole plot taken separately.

5. Find the difference in the estimated contents of the following cutting when the methods by "mean area," "mean heights," and prismoidal formulae, are used :—

Cutting 100 feet long, heights at ends 15 and 24, slopes $1\frac{1}{2}$ to 1.

Third Year Students.

6. Take out the quantities of timber and masonry in the accompanying bridge.

Third Year Students.

CIVIL AND MECHANICAL ENGINEERING.

1. In the Geological divisions called Aqueous, Metamorphic, Volcanic, and Plutonic, state the rocks that are silicious.

2. What use is chiefly made of the Argillaceous Rocks?

3. Describe the methods of moulding bricks known as slop and pallet moulding.

4. Describe the method of burning bricks employed in the neighbourhood of London.

5. What is Portland Cement? How is it made, and what were the tests of its quality used at the main drainage works of London?

6. Describe and sketch the masonry know as Ashlar, Block-in-course, Coursed Rubble, and Common Random Rubble.

7. What is meant by "Batter" in a wall? How is it constructed by the mason when required?

8. What is meant by saying an arch is equilibrated under vertical forces only? Show that in order that an arch ring may not have tension at any joint, it is necessary that a curve of equilibrium can be drawn through the middle third of the ring.

---

9. Sketch a Masonry Bridge with wing walls parallel to the axis of the arch.

10. Find the deflection of a horizontal beam of Riga fir, $12'' \times 12''$, when one end is fixed into a wall, and it projects 10 feet from the wall. It is loaded with one ton at its free end, and the modulus of elasticity is 1,500,000 lbs. inches.

11. Determine the safe load at 3 feet from one end of a beam of Memel fir 13 feet long, 9″ deep and 6″ broad, the distance between the points of support being 12 feet, and the safe stress 700 lbs. per sq. inch.

Appendix, No. 8.

General Class Examination.

12. A Bridge Truss of 60 feet span consists of 9 equilateral triangles. It is loaded upon the four upper joints with 5, 5, 2, 2 tons respectively, and is supported on the end joints of the top chord. Find the stresses upon the different members of the truss.

13. Describe the sinking of a cast-iron tube for a foundation by the "plenum" method.

14. Find the pressure in a pipe 3 feet diameter, at a distance of $3\frac{1}{4}$ miles from the reservoir, when the water is flowing at 3 feet per second, and the surface of the water in the reservoir is 180 feet above the axis of the pipe at the given point.

15. Show how the motion of the D slide valve relatively to the crank of a steam-engine may be represented by a diagram.

16. Explain the effects of lead and external and internal lap upon the distribution of steam in the cylinders of a steam-engine, and also their effect upon the indicator diagram.

NATURAL PHILOSOPHY.—*Examiner, Professor Everett.*

EXPERIMENTAL PHYSICS.

1. What is the velocity acquired from rest by a falling body in $\frac{1}{10}$ of a second, and what is the space described?

2. A uniform lever 10 ft. long, balances about a point a foot from one end, when loaded at that end with a weight of 50 lbs. Find the weight of the lever.

3. Two forces of 6 and 8 units act upon a solid body, in lines which meet in a point and are at right angles. Find the magnitude of their resultant.

4. Two liquids whose densities are respectively 2 and 3, are mixed, and the volume of the mixture is the sum of the volumes of the two constituents. Find the density of the mixture; first, when two parts by *volume* of the first liquid are mixed with three of the second; secondly, when two parts by *weight* of the first are mixed with three of the second.

5. The clear volume of the barrel of an air-pump is one-third of that of the receiver and passages. Find what proportion of the original air is left after three strokes.

6. A cubical cistern measuring a yard each way is filled with water. Find in lbs. the total pressure of the water against one of the vertical faces; atmospheric pressure being neglected, and a cubic foot of water being supposed to weigh $62\frac{1}{2}$ lbs.

7. What temperature Fahr. corresponds to 60° Cent., and what elevation of temperature Fahr. corresponds to an elevation of 20° Cent.?

8. The latent heat of liquefaction of ice being 80° on the Centigrade scale, find how much water at 50° mixed with a pound of ice at 0° will yield water at 10°.

9. Give a brief description of the common siren as used for determining the number of vibrations of a given note.

10. A certain musical string makes 256 vibrations per second. How many vibrations will it make per second if its length is halved, and its tension at the same time increased in the ratio of 81 to 100?

11. At what distance must a convex lens of 5 inches focal length be held from a small object, that a virtual image may be formed at a distance of 24 inches from the lens?

12. Explain why it is necessary to use a fine slit in order to obtain a pure spectrum.

13. An object at the distance of 36 inches from a concave spherical mirror gives a real image at a distance of 6 inches. Find the focal length and the radius of curvature.

14. What plane at a given place is called the magnetic meridian; and what line traced upon the earth's surface through a given place is called a magnetic meridian?

15. Given a long copper wire covered with cotton, a galvanic battery, and a bar of soft iron, how would you proceed to make the bar a temporary magnet?

16. Describe briefly the gold-leaf electroscope, and the mode of using it to test the kind of electricity with which a given body is charged.

17. The current of a battery alters in the ratio of 5 to 4, when the connecting wire is increased from 30 feet to 40 feet of the same kind of wire. Find the resistance of the battery in terms of feet of the wire.

NATURAL HISTORY.—*Examiner, Dr. Cunningham.*

BOTANY.

[Senior Students omit questions 3 and 8, Junior Students omit questions 2 and 11.]

1. Describe the ordinary structure of a cell, and briefly mention some of the more important changes which cells undergo with increase of age, alike as regards the condition of the cell-wall and the cell-contents.

2. Give a short account of the principal methods of cell-formation.

3. Describe the ordinary structure of the stem in Dicotyledons.

4. To what causes is the phenomenon of the fall of the leaf attributed?

5. Give a list of Dicotyledons exhibiting a petaloid calyx.

6. Mention some plants in which the branching and the cohesion of stamens are exemplified.

7. Describe the three principal methods of aestivation.

8. State the more important characters of Umbelliferae, and mention some of the plants included in the order which are possessed of esculent, medicinal or poisonous properties.

9. State the general characters and the affinities of Scrophulariaceae, and mention some of the more noteworthy peculiarities exhibited by certain of the genera.

10. Mention those characters which distinguish Gymnosperms from ordinary Dicotyledons.

11. Describe the general structure and method of reproduction in Characeae.

CHEMISTRY.—*Examiner, Dr. Andrews.*

PRACTICAL CHEMISTRY.

1. Nitrate of silver gives a precipitate in a solution which may contain phosphoric, hydrochloric, hydriodic or hydrocyanic acid; how would you analyse the precipitate?

2. In what solutions does the ferric chloride give a red liquid; how would you distinguish them?

3. What are the distinctive tests for mercurous and mercuric salts?

4. How would you determine the amount of phosphoric acid in bone earth?

5. What are the blow-pipe tests for zinc, lead, and copper?

6. How would you determine the amount of urea in urine?

7. Describe Gauthier's method of determining quantitatively the amount of arsenious acid in an organic liquid.

[The students were also examined in quantitative analysis.]

Appendix, No. 8.

General Class Examination.

MIDWIFERY, AND DISEASES OF WOMEN AND CHILDREN.—*Examiner, Robert Foster Dill*, M.D.

1. Demonstrate the curve of Carus and the different axes of the female pelvis.

2. Name the deformities which have been found in the pelvis. Give the pathology of each.

3. How may the term of gestation be calculated and determined?

4. Define the terms "Signs" and "Symptoms" of pregnancy. Give one or two illustrations of each.

5. What is the cause of labour?

6. Give the causes of delay in each stage of labour.

7. How would you diagnose the left occipito-cotyloid position? State how the head, from this position, passes through the pelvis.

8. State how you would distinguish unavoidable hæmorrhage from accidental hæmorrhage. State the treatment of each case, and wherein the treatment of unavoidable hæmorrhage differs from that of post-partum hæmorrhage.

9. Describe Dr. Braxton Hicks' mode of turning.

10. What are the operations which have been recommended in cases of labour complicated with prolapse of the funis?

11. Give the diagnosis in the following case: the head recedes, the agony is excessive, the pulse is feeble and rapid, the patient vomits, respiration becomes hurried, and death takes place.

MEDICAL JURISPRUDENCE.—*Examiner, Professor Hodges*, M.D., F.C.S.

1. Describe the symptoms of poisoning by Chloral Hydrate.

2. Give an account of the evidence to be obtained from the examination of wounds.

3. How is Concussion of the Brain to be distinguished from Intoxication?

4. In what periods have the following poisons been eliminated from the body?

5. How is Arsenic to be distinguished from Antimony?

6. What is the treatment of poisoning by Strychnine?

7. How are Haemin Crystals to be obtained from Blood Stains?

8. What are the signs of recent delivery?

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THE REPORT

OF THE

PRESIDENT

OF

QUEEN'S COLLEGE, CORK,

FOR

THE ACADEMIC SESSION 1876–7;

WITH APPENDICES.

Presented to both Houses of Parliament by Command of Her Majesty.

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THE REPORT

OF THE

PRESIDENT OF QUEEN'S COLLEGE, CORK,

FOR

THE ACADEMIC SESSION 1876-7.

TO THE QUEEN'S MOST EXCELLENT MAJESTY.

MAY IT PLEASE YOUR MAJESTY—

In compliance with a provision of the Act of Parliament founding the Queen's Colleges (8 and 9 Vict., c. 66, s. 20), and in accordance with the College Statutes, I have the honour of submitting to Your Majesty the following Report of the Proceedings and of the Condition of Queen's College, Cork, for the Academic Session 1876-77.

Before the Session opened Mr. Robert J. Kenny, who held the office of Registrar for many years, retired on superannuation, and Your Majesty was pleased to appoint as his successor Alexander Jack, M.A., Professor of Engineering. As the new Registrar resides in the College, in the house formerly occupied by the Vice-President, he is able to fulfil all the statutable duties of his office, which include the care of the College buildings and property.

Since the close of the Session Dr. Reay Greene, Professor of Natural History, has resigned his chair through ill health. Dr. Greene's resignation does not, I am sorry to say, cause a vacancy, for by an arrangement made in 1863, solely upon economic grounds, and embodied in the existing College Statutes, the duties of the chair of Natural History now devolve upon the Professor of Mineralogy and Geology.

1. MATRICULATION EXAMINATION, TOTAL NUMBER OF STUDENTS, AND THEIR CLASSIFICATION ACCORDING TO ACADEMIC STANDING AND FACULTIES.

At the General Matriculation or Entrance Examination held on Tuesday, the 17th of October, and a Supplementary Examination held on Tuesday, the 14th of November, 67 Candidates presented themselves, of whom 53 were admitted, and 14 not admitted. To these are to be added 2 Students admitted *ad eundem* from other Universities, and 13 new Non-Matriculated Students, making the

total number of new Students 68; of whom 64 took out lectures, and 4 through illness or other causes did not. The following table shows the classification according to Faculties of the new Students who took out lectures:—

	Matriculated Students.	Non-Matriculated Students.	Total.
Faculty of Arts,	18	3	21
,, Law,	1	–	1
,, Medicine,	27	9	36
School of Engineering,	5	1	6
	51	13	64

In addition to the newly Matriculated Students 12 Students who had matriculated in former years, but who had not from various causes taken out lectures, joined the first year's classes. The total number of Matriculated Students on the College books for the Session 1876–77 was 208, and of Non-Matriculated 24, or together 232, who were distributed among the several Faculties as follows:—

	Matriculated Students.	Non-Matriculated Students.	Total.
Faculty of Arts,	60	3	63
,, Law,	4	–	4
,, Medicine,	132	20	152
School of Engineering,	21	1	22
Gross Total,	217	24	241
Deduct number of Students attending Lectures in two Faculties.	9	–	9
True Total,	208	24	232

In the following table the Matriculated Students on the College books for the Session 1876–77 are classified according to Faculties and Academic Standing:—

	Number of Matriculated Students on the College Books of the				
	First Year.	Second Year.	Third Year.	Fourth Year.	Total.
Faculty of Arts,	29	14	7	10	60
,, Law,	2	–	1	1	4
,, Medicine,	33	43	30	26	132
School of Engineering,	9	2	10	–	21
Gross Total,	73	59	48	37	217
Deduct Number of Students attending Lectures of another Year also,	1	1	3	4	9
True Total,	72	58	45	33	208

2. Comparison of the Number of Students attending the College during the past Session with the Number in each of the preceding five Sessions respectively.

The number of Students on the College books for the Session 1876–77 was less than for either of the five preceding Sessions, as

will be seen from the following table in which the Students are classified according to Academic Standing:—

	Number of Students in the Session of					
	1871–72.	1872–73.	1873–74.	1874–75.	1875–76.	1876–77.
Matriculated Students—						
Of the First Year,	90	106	77	79	95	72
,, Second ,,	47	61	68	60	48	58
,, Third ,,	52	36	52	58	49	45
,, Fourth ,,	27	26	31	30	34	33
Attending Special Courses,	14	3	–	–	–	–
Total,	230	232	228	227	226	208
Non-Matriculated Students,	23	20	22	23	24	24
Total Number of Students,	253	252	250	250	250	232

In the following table the Students on the College books during the same years are classified according to Faculties:—

	Number of Students in the Session of					
	1871–72.	1872–73.	1873–74.	1874–75.	1875–76.	1876–77.
Faculty of Arts,	56	49	64	58	53	63
,, Law,	12	12	7	7	3	4
,, Medicine,	173	174	170	174	176	152
School of Engineering,	25	22	19	23	27	22
Gross Total,	266	257	260	262	259	241
Deduct Number of Students attending Lectures in two Faculties,	13	5	10	12	9	9
True Total,	253	252	250	250	250	232

From these tables it will be perceived that the decrease took place in the Faculty of Medicine, and among the first year Students. The changes which recently took place in several of the Chairs in the Medical School, and the modifications in the methods of teaching, especially as regards practical work, introduced by the new Professors, led, as was to have been expected, to a diminution in the number of casual Students who come from a distance. But if the number of Students was somewhat less the work of the Medical School was never more thoroughly done than during the last Session.

3. Localities from whence Students come.

In my last Report I pointed out that the majority of the Students of Queen's College, Cork, in the Session 1874–75 and 1875–76 belonged to the Province of Munster, for the use of which the College was established, and chiefly to the county and city of Cork, in which it is situated. The following table shows that this was also the case during the past Session:—

Session.	Per-centage of Matriculated Students from		Per-centage of Munster Students from	
	Province of Munster.	Other Localities.	County and City of Cork.	Other Counties of Munster.
1874–75,	93·8	6·2	76·5	23.5
1875–76,	85·8	14·2	75·2	24·8
1876–77,	90·6	9·4	78·3	21·7

4. Ages of Students.

Of the new Students 70·3 per cent. were 17 years of age and upwards, and 29·7 per cent. under 17 years of age. Taking all the Matriculated Students on the College books 90·8 per cent. were 17 years of age and upwards, 9·2 per cent. under 17 years of age, and 45·5 per cent. 20 years of age and upwards.

5. Religious Denominations of Students.

In the following table the Students Matriculated in the Session 1876–77, and the new Non-Matriculated Students, are classified according to the religious denominations to which they belong:—

	Matriculated for the first time.				
	New.	Formerly Non-Matriculated, or Matriculated in Engineering only.	Total.	New Non-Matriculated Students.	Total.
Roman Catholics,	26	2	28	7	35
Church of Ireland,	18	1	19	6	25
Presbyterians,	2	–	2	–	2
Wesleyans,	4	1	5	–	5
Independents,	1	–	1	–	1
Total,	51	4	55	13	68

The four Students enumerated in column 2 of the foregoing table have not been included in the table of new Matriculated Students given at p. 6.

In the following table all the Students on the books of the College for the Session 1876–77 are classified according to religious denominations and Academic Standing:—

	Matriculated Students.					
	First Year.	Second Year.	Third Year.	Fourth Year.	Non-Matriculated Students.	Total.
Roman Catholics,	31	29	19	21	13	113
Church of Ireland,	30	25	22	12	11	100
Presbyterians,	2	3	1	–	–	6
Wesleyans,	8	1	3	–	–	12
Independents,	1	–	–	–	–	1
Total,	72	58	45	33	24	232

Roman Catholics formed, therefore, 48·7 per cent. of all the Students of the College in the past Session.

The following table gives the number of Students of each religious denomination in the several Faculties:—

Faculty.	Roman Catholics.			Church of Ireland.			Presbyterians.	Wesleyans.	Others.	Total.		Gross Total.
	Matr.	Non-Matr.	Total.	Matr.	Non-Matr.	Total.	Matr.	Matr.	Matr.	Matr.	Non-Matr.	
Faculty of Arts,	22	2	24	25	1	26	6	6	1	60	3	63
„ Law,	3	–	3	1	–	1	–	–	–	4	–	4
„ Medicine,	75	11	86	54	8	62	–	4	–	133	19	152
School of Engineering,	5	–	5	13	1	14	–	3	–	21	1	22
Gross Total,	105	13	118	93	10	103	6	13	1	218	23	241
Deduct No. of Students attending Lectures in two Faculties,	5	–	5	3	–	3	–	1	–	9	–	9
Total,	100	–	113	90	–	100	6	12	1	209	23	232

In the following table the number of Scholars and Exhibitioners in the Session 1876–77 of each religious denomination is given :—

	Roman Catholics.		Church of Ireland.		Presbyterians.	Wesleyans.		Total.
	Scholars.	Exhibitioners.	Scholars.	Exhibitioners.	Scholars.	Scholars.	Exhibitioners.	
Faculty of Arts, . .	8	3	10	3	5	1	1	31*
,, Law, . .	1	1	1	–	–	–	–	3
,, Medicine, .	5	4	2	2	–	1	–	14
School of Engineering, .	–	–	1	–	–	2	–	3
	14	8	14	5		4	1	
Total, . .	22		19		5	5		51*

The fluctuations which take place from time to time in the relative numbers of Students belonging to the several religious denominations may be seen from the following table, in which the numbers for the Session 1876–77 are contrasted with those of each of the preceding ten years :—

Religious Denominations.	Total Number of Students of each Religious Denomination in the Session of										
	1866-67	1867-68	1868-69	1869-70	1870-71	1871-72	1872-73	1873-74	1874-75	1875-76	1876-77
Roman Catholics, .	108	111	97	94	86	104	107	123	129	131	113
Church of England, and now of Ireland,	106	118	125	134	142	131	130	116	96	101	100
Presbyterians, .	7	7	12	8	12	10	8	9	8	7	6
Wesleyans, . .	9	11	10	16	10	8	5	2	10	11	12
Other Denominations, . . .											1
Not recorded, .	–	–	–	–	–	–	2	–	7	–	–
Total, . .	230	247	244	252	250	253	252	250	250	250	232

Calculating from the foregoing table the per-centage of the total number of Students for each of the years it embraces who were Roman Catholics, Protestants of the Established Church or of its present representative the Church of Ireland, and Protestants of all other denominations, we get the following table which will, perhaps, show the character of these fluctuations better than the preceding table :—

Session.	Per-centage of total Students who were			
	Protestants of			Roman Catholics.
	The Established Church or Church of Ireland.	Other Denominations.	All Denominations.	
1866–67, . . .	46·08	6·95	53·03	46·95
1867–68, . .	47·77	7·28	55·05	44·93
1868–69, . .	51·22	9·01	60·23	39·75
1869–70, . .	53·17	9·52	62·69	37·30
1870–71, . .	56·80	8·80	65·60	34·40
1871–72, . .	51·77	7·11	58·88	41·10
1872–73, . .	51·58	5·15	56·73	42·46
1873–74, . .	46·40	4·40	50·80	49·20
1874–75, . .	38·40	7·20	45·60	51·60
1875–76, . .	40·40	7·20	47·60	52·40
1876–77, . .	43·10	8·19	51·30	48·70

* The numbers marked with an asterisk differ by 1 from the corresponding number in the table given under Scholarships and Exhibitions, p. 10, because two Scholarships in different divisions of the Faculty of Arts were awarded to the same Student, he having been first on each list.

6. Scholarships, Exhibitions, &c.

The Scholarship Examinations commenced on Thursday, Oct. 18th, and were continued on the days given in the table in the Appendix (A, No. I., p. 24). The subjects of examination prescribed by the College Council, and published in the College Calendar, and the conditions under which Scholarships are held, will also be found in the Appendix (A, No. I., p. 23; No. II., p. 34; No. III., p. 40; No. IV., p. 43; and No. V., p. 49). These examinations were conducted chiefly by printed papers, copies of which will be found in the Appendix (D, No. 14., p. 113). Of the 46 Junior Scholarships at the disposal of the Council, 10 in the Faculty of Arts open to Students of one year's standing are tenable for two years, so that in reality there are only 20 Junior Scholarships in Arts, or 36 in all the Faculties at the disposal of the Council each year. Of these 25 were awarded, or, adding those held by Students of two years' standing awarded the preceding Session, 31. Of the 8 Senior Scholarships 7 were awarded. There was considerable competition for the Junior Scholarships open to Students at entrance, and the answering of the Candidates for the Science Scholarships was so good that the Council awarded Exhibitions to four of the unsuccessful Candidates whose answering was deemed worthy of a special prize. Exhibitions were also awarded to the unsuccessful Candidates for Senior Scholarships—namely, one in Modern Languages, Literature, and History, one in Mental and Social Science, and one in Chemistry. Two Exhibitions were awarded to unsuccessful Candidates for Second and Third Year Scholarships in the Faculty of Medicine.

The following table shows the number of Scholarships in each Faculty, the number awarded in the past Session, or held from the preceding one; and also the number of Exhibitions awarded:—

Faculty.	Total No. of Scholarships.	No. of Scholarships awarded.	No. of Exhibitions awarded.
Faculty of Arts—			
Junior Scholarships—			
Open to Students at Entrance,	10	10	4
Open to Students of One Year's standing, or those entering on Second Year,	10	6	–
Held by Students of Two Years standing, or those of Third Year,	10	3	–
Total,	30	19	4
Senior Scholarships,	7	6	3
Faculty of Law—			
Junior Scholarships,	3	1	1
Senior "	1	1	–
Faculty of Medicine,	8	8	6
School of Engineering,	5	3	–
Total,	54	38	14
			52

The Exhibitions in the Faculty of Medicine enumerated in the foregoing table include three Special Exhibitions awarded by the Council at the end of the session. Two of the Scholarships

in the Faculty of Medicine, those of the first year, are intended to promote the general education of Students who enter the Faculty directly without having previously graduated in Arts; the remaining Scholarships are given to encourage a thorough study of the theoretical parts of Medical Science. With the view of encouraging the study of the practical parts also, especially a thorough attention to hospital practice, the Council last Session offered three Exhibitions of the value of £15 each; one in Surgery, one in Medicine, and one in Midwifery. The examination in Surgery embraced a clinical examination and report of four cases in hospital selected by the Examiner, an examination in Clinical Surgery, and Operative Surgery, including operations on the subject. The examination in Medicine embraced a clinical examination and report of four cases in hospital selected by the Examiner, and an examination in Practical Medicine, and on appliances for, and aids to medical diagnosis. The examination in Midwifery also comprised a clinical examination and report of a number of cases, and an examination on the use of obstetric appliances. These Exhibitions were open to all Students of not more than four years' standing, both matriculated and non-matriculated, were well contested, and promise to produce good results.

The Council also offered last Session a special prize of £5 for the promotion of the study of Ancient History.

The name "Scholarship" given to the prizes appointed by the College Statutes tends to mislead the public as to their true character and value. Strictly speaking they are only Exhibitions, and differ from the prizes called by that name in the foregoing table in their number and value being fixed by the Statutes, while the Exhibitions are awarded by the College Council at their discretion when they happen to have a fund available for the purpose. The competition for the statutable Exhibitions or Scholarships naturally varies in different Sessions. Thus last Session there was much competition for the Junior Scholarships awarded at entrance, and for most of the Senior Scholarships, while that for the Scholarships of the Second Year was not good. Add to this that the Council being anxious to keep up a high standard of answering are careful not to award a Scholarship unless the candidate has reached a certain standard, and that they rigidly enforce the regulation that holders of Scholarships and Exhibitions must pass the Sessional Examinations of their year, otherwise they forfeit their stipends; it follows, therefore, that Scholarships even when competed for may not be awarded, and others are forfeited because the holders fail to pass their subsequent Sessional Examinations. The fund created by such lapsed and forfeited Scholarships in one department enables the Council to award Exhibitions in other departments where the competition has been greater, and the merit of the unsuccessful candidates for Scholarships such as to deserve special prizes. If we add to the Statutable Exhibitions or Scholarships awarded each Session the Exhibitions given at the discretion of the Council we shall find that the sum will

generally not be much short of the total number of Scholarships appointed by the Statutes.

The names of the Scholars and Exhibitioners in the Session 1876–77 will be found in the Appendix (B, No. VII., p. 52).

7. Lectures.

A list of the subjects in which instruction is given in the College, the total number of Students who attended classes in those subjects, and the number of lectures given in each subject, will be found in the Appendix (B, No. X., p. 56). Under the head of each Faculty, detailed information as to the courses of studies, outlines of the lectures given by each Professor, &c., are also given in the Appendix (A, Nos. II., III., IV., and V., pp. 29, *et seq.*, 39, 42, 46, *et seq.*). Each Professor has also furnished a Special Report of his work for the Session. From these Reports which are given in the Appendix (C, No. XI., p. 56, *et seq.*), it will be seen that the attendance of the Students was satisfactory.

The Professor of English Law notices in his Report a matter of great moment to the Law School of this College—namely, that the lectures of the Incorporated Society of Attorneys, given in Dublin, attendance upon which is compulsory on every attorney's apprentice, clash with the law lectures of this College; and as the council of the Incorporated Society do not accept the latter as a substitute for those of their own Lecturer, Students who are apprentices cannot consequently attend the law lectures in the College with regularity. I hope the Council of the Incorporated Society, in the interests of legal education, will follow the example of the Benchers of the King's Inns, and recognise the law lectures given in the Queen's Colleges as the equivalent, in part at least, of those delivered in Dublin by their own Lecturer.

The only other matter in these Reports which calls for special mention here is the recommendation made by the Professor of Anatomy and Physiology, and the Professor of Materia Medica to institute a Summer Session of the Faculty of Medicine. The Professor of Materia Medica has well pointed out the defects of the present system of one Session in the year, and indicated some of the reasons which may be urged in favour of adding a second or Summer Session. It must be admitted that under the present arrangement the Professors of that Faculty have great difficulty in making satisfactory arrangements about their lecture hours, and that the Students' time and energies are much taxed. The suggestion is, therefore, well worthy of careful consideration, which I have no doubt it will receive from the Council next Session.

8. Sessional Examinations and Prizes.

The examinations held at the end of the session, or in the case of those subjects which only occupy one or two terms, at the end of the course were satisfactory.

According to the present regulations of the College Council Students of Medicine must follow a prescribed curriculum and pass

the Sessional Examinations of their year if they wish to compete for the scholarships and prizes in the Faculty. These regulations though theoretically sound nevertheless seriously restrict competition, because many medical students, taking advantage of the freedom allowed by the universities and other licensing bodies in the order of taking out the courses of lectures required for a degree or license in medicine or surgery, do not strictly follow the order of the curriculum prescribed by the Council, and consequently render themselves thereby ineligible for scholarships and prizes. This seems to show that freedom in selecting the order in which the necessary courses should be followed offers practical advantages of some kind which many students consider of more value than the privilege of competing for scholarships and prizes, when coupled with an obligatory order of study. There can be no doubt on educational grounds that it would be much better for a student not to have this freedom of pursuing his studies at random; but until all the universities and licensing bodies agree upon a common course and enforce it rigidly, medical education might perhaps be better promoted by relaxing the regulations so as to enable all students to compete, and thus secure the far more important advantage of bringing as large a number of students as possible under Sessional Examinations.

The number of students who took part in the practical part of the Sessional Examination in Practical Anatomy, notwithstanding that few were eligible for the prizes, indicates that good results might be expected to follow from a relaxation of the regulation in the direction suggested. The subject has already engaged the attention of the Council.

Copies of the Sessional Examination Papers are given in the Appendix (D, No. XIV., pp. 71–87, 102–104, 107, 108–113), and the names of the students who were awarded prizes and certificates at those examinations and at other examinations in special subjects will also be found there (B. No. VIII., p. 53).

9. University Examinations.

The following table gives the number of students of Queen's College, Cork, who passed the examinations of their Standing and Faculty, and obtained Degrees, Diplomas, &c., at the June and October Commencements of the Queen's University in Ireland for the year 1876—

Faculty of Arts.

Degree of Master of Arts (M.A.),	2	First University Examination in Arts,	4
„ Bachelor of Arts (B.A.),	11		

School of Engineering.

Degree of Bachelor in Engineering,	2	First University Examination,	5

Faculty of Law.

Degree of Bachelor in Laws (LL.B.), 2.

Faculty of Medicine.

Degree of Doctor in Medicine (M.D.),	23	First and Second University Examination in Medicine,	3
„ Master in Surgery (M.Ch.),	18	First University Examination in Medicine,	28
Diploma in Midwifery,	11		
Second University Examination in Medicine,	11		

The names of those upon whom degrees were conferred, and of the undergraduates who passed the examinations of their standing, are given in the Appendix (B, No. VI., p. 50).

10. Conduct and Discipline.

In the class-rooms, laboratories and library the conduct and discipline of the students was good, as will be seen by the Reports of all the Professors, and of the Librarian (see Appendix C, No. XI., p. 56, *et seq.*, No. XII., p. 69). Within the precincts of the College generally their conduct has been equally satisfactory; very few cases of misconduct within or without the College were reported to me during the session, and none of sufficient gravity to call for the direct action of the Council.

11. Receipts and Expenditure of the College.

The Bursar's Annual Account of the Receipts and Expenditure of the College for the year ending the 31st of March, 1877, and his special account of the expenditure of the Annual Parliamentary Grant for the maintenance of the College, and the College Fees and Fines for the same period, will be found in the Appendix (C, No. XIII., p. 70). The accounts of which these are abstracts have been signed and passed by the Auditor-General, and contain nothing which requires to be specially explained or noticed here.

12. Library.

It will be seen from the Report of the Librarian, which will be found in the Appendix (C, No. XII., p. 69), that 1,141 volumes have been added to the Library during the past year, of which 629 volumes were gifts. Among these the gift of William Crawford, of Lakelands, Esq., Cork, deserves particular notice here on account of the number (554 volumes) and value of the books given. Several of them are so costly that with our limited funds and many wants we could not afford to purchase them, though no important collegiate or public library should be without them. The College is, therefore, greatly indebted to Mr. Crawford for his gift, and for the worthy example he has set.

Considerable progress has been made with the re-arrangement of the books and the preparation of a catalogue. Until this work shall have been completed the number of books in the Library cannot be accurately stated; in the meantime the numbers given in the Librarian's Report, which has been carried on from year to year, must, as I have observed in my last Report, be regarded as approximate.

The Librarian points out in his Report that the want of adequate space and suitable accommodation for books in the Library requires immediate attention. In my last Report I called attention to this subject, and stated that notwithstanding the gain of space by the re-arrangement of the books, and doubling on the shelves long series of journals, the available book-space in the

Library would be fully taken up in two or three years. This calculation was based on the assumption that the annual growth of the Library would be about the same as in last Session. But Mr. Crawford's gift alone will occupy more space than the purchases of a whole year, so that the available space will be filled sooner than was anticipated.

In the Appendix (E, No. XV., p. 120) will be found a list of the books presented to the Library, and the donors' names.

13. Physical Cabinet and Laboratory and Observatory.

The Physical Laboratory referred to in my two preceding Reports is now provided with sufficient fittings to be used; and several important additions have been made to the collection of physical apparatus. The Professor of Natural Philosophy is now, therefore, fairly provided with the means of illustrating his lectures properly, and of giving practical instruction in several branches of experimental science. We cannot, however, practically teach the methods of observation employed in Astronomy, Magnetism, and Meteorology, because we have not an Observatory. Some steps have, however, been taken to provide one, and I hope in the course of next Session we shall be able to make a beginning.

14. Physiological Laboratory.

The Professor of Anatomy and Physiology has begun the formation of a collection of apparatus with which to illustrate his lectures on Physiology by experiments in a manner worthy of the present state of that branch of science. A temporary Physiological Laboratory was also provided having a table for microscopical work, and four places for chemico-physiological investigation. The fittings of this temporary Laboratory were so constructed that they can be readily transferred at a trifling expense to the permanent Physiological Laboratory which forms part of the plan for the re-arrangement and enlargement of the Medical School now being carried out. The new Laboratory will be ready for work next Session.

15. Enlargement and Improvement of the Medical School.

The detached building appropriated to the Medical School is too small for the present number of Students, and, having been erected piecemeal, the internal arrangements are defective, causing much inconvenience to Professors and Students, and seriously impeding the work of the School. I called attention in previous Reports to the insufficiency of the accommodation provided for certain departments, namely Practical Anatomy and Materia Medica, and especially to the want of a good anatomical and pathological museum. Parliament having this year voted a sum of money for these purposes a favourable opportunity presented itself for re-arranging the whole build-

ing upon a definite plan, which though based on the present wants of the School, should nevertheless provide for the gradual increase in the number of Students, which may reasonably be expected to take place within the next few years. Even on economic grounds this would obviously be the best thing to do. Mr. Owen, Architect of the Board of Public Works, Ireland, went into the matter carefully, and prepared plans which if carried out would have given us one of the best arranged Medical Schools in the kingdom. The cost of this plan unfortunately would have exceeded the sum provided by the vote of Parliament, and a different one had to be prepared. This second plan though inferior to the first will, however, provide ample and convenient accommodation for every Professor, including a Physiological Laboratory, a Materia Medica Laboratory and Museum, a room for surgical and obstetrical instruments and medical and surgical appliances, and an Anatomical and Pathological Museum. The latter has been designed with a view of ultimately forming the western extremity of the extended façade of the College. The alterations in the existing Medical School will be completed before the commencement of next Session, and the new Museum in the course of the year.

16. Museums.

No additions of importance were made during the last year to our archæological, zoological, anatomical, or pathological collections, but many valuable and interesting specimens have been added to our geological collections, especially to the Palæontological part.

Some additions have also been made to our Herbarium, which now contains about 50,000 named specimens. To make this rich collection more useful, especially to local naturalists who make considerable use of it, Mr. Sullivan, Superintendent of the Botanic Garden, has undertaken to make a rough reference catalogue of it, and has already registered about 25,000 plants.

Many strangers visit the Geological and Natural History Museums, and local artists sometimes avail themselves of the latter to study the forms of animals. We cannot exhibit our archæological collections to the public from the want of suitable cases in which to arrange them, and of a room which could be set apart as a temporary Archæological Museum. Provision having been made in this year's Parliamentary Estimates for some museum cases, the first want will probably be soon supplied. When the new cases are finished we shall be able to arrange and label the many articles now in drawers, and encourage the friends of the College to add to them. The collection embraces prehistoric antiquities, especially Irish, Greek, Roman, and other ancient antiquities, such as vases, bronzes, coins, &c., and objects illustrative of the habits and industry of uncivilized races. As the growth of such a museum must necessarily depend almost wholly on gifts, we appeal to the friends and former Students of the College to help us.

17. Botanic Garden.

The labelling of the plants in the Botanic Garden to which I referred in my last Report, has since been extended to all the different kinds of trees and shrubs in the College grounds, and is now nearly completed. I am sorry to have to report that nothing has yet been done to provide a glass-house for tropical plants, the great want of which I have pointed out in successive Reports. It is needless to dwell upon the necessity for such a house for teaching Botany, nor upon its utility for teaching Materia Medica, nor upon the advantages it would be to the Students of the local School of Art. I have received several offers of valuable plants for such a house, among others from the late H. M. Goulding, Esq., which I regret I was unable to accept.

We have again to thank Dr. D. Moore, Director of the Botanical Garden, Glasnevin, for his willing help in increasing our collection of hardy plants, by a gift of cuttings of fifty varieties of willows for our new ground.

18. Extension of College Grounds and New Entrance to the College.

The Lords Commissioners of Your Majesty's Treasury having sanctioned the purchase of additional ground on the condition that the College provided from its unappropriated balances one half the purchase-money, the Board of Public Works, Ireland, in whom the Colleges Act vest all lands purchased for the College with public money, is about to get possession of sufficient adjoining land to give a good boundary, and the power of making a new entrance to the College from the Western Road.

It would be difficult to exaggerate the importance of this purchase. In the first place it will take away the unsightly appearance on the north-east of the College, protect the College grounds from trespass, and those who live in the College from very unpleasant sights, give a better site than the present one, and adequate space for the Botanic Garden, and above all afford an opportunity for making an entrance to the College upon one of the chief highways to the city of Cork, and thereby bring the College nearer to town. I hope the new boundary wall will be built, and the newly purchased land cleared and levelled immediately, so that the College may get the benefit of this purchase with as little delay as possible.

I beg to subscribe myself,

Your Majesty's most dutiful servant,

WILLIAM K. SULLIVAN,

President.

Queen's College, Cork,
29*th July*, 1877.

APPENDIX.

Appendix A.

No. I. General Regulations of College, &c.

APPENDIX A.

No. I.

ESTABLISHMENT of the COLLEGE and UNIVERSITY. COLLEGIATE STAFF. GENERAL REGULATIONS of the COLLEGE. STUDENTS: MATRICULATION, RESIDENCES, FEES, LECTURE HOURS, SCHOLARSHIPS, EXHIBITIONS, PRIZES, DEGREES.

QUEEN'S UNIVERSITY IN IRELAND—QUEEN'S COLLEGE, CORK.

ESTABLISHMENT OF THE COLLEGE AND UNIVERSITY.

The COLLEGE is a Corporation under the name and style of "THE PRESIDENT and PROFESSORS of QUEEN'S COLLEGE, CORK." It was founded under the provisions of the Act 8 & 9 Victoria, cap. 66, intituled "An Act to enable Her Majesty to endow new Colleges for the Advancement of Learning in Ireland." Under the powers given by this Act the three colleges of Belfast, Cork, and Galway were incorporated on the 30th day of December, 1845. The Statutes were drawn up, and the system of education to be pursued in them arranged by a Board called the "Board of Queen's Colleges," consisting of the Presidents and Vice-Presidents of the three colleges. The Professors were appointed on the 4th of August, 1849, and on the 30th of October of the same year the Colleges were opened for the reception of students. Letters Patent constituting the Statutes were issued on the 11th of December, 1849, and a further Charter was issued in the year 1863.

The UNIVERSITY was founded in 1850 under the name and style of the "QUEEN'S UNIVERSITY IN IRELAND," and its charter provides that the Senate should have power to confer upon the students of the Queen's Colleges of Belfast, Cork, and Galway such degrees and distinctions in the Faculties of Arts, Law, and Physic, as are granted and conferred in other Colleges and Universities of Great Britain and Ireland. The Charter further ordains that any of the students of the three Queen's Colleges who shall have obtained such Degrees in any of the several Faculties of Arts, Medicine, and Law as shall be conferred by the Chancellor and Senate of the Queen's University, shall be fully possessed of all such rights, privileges, and immunities, as belong to similar Degrees granted by other Universities or Colleges, and shall be entitled to whatever rank and precedence is derived from similar Degrees granted by other Universities.

The Professors of the three Queen's Colleges are entitled to style themselves "Professors of the Queen's University."

College Staff.

President—William K. Sullivan, ph.d., m.r.i.a.

Professors.

The Greek Language,	E. Vaughan Boulger, m.a.
The Latin Language,	Bunnell Lewis, m.a., f.s.a.
Mathematics,	Charles Niven, m.a., Fellow of Trin. Coll., Camb.
Natural Philosophy,	John England, m.a.
History and English Literature,	George F. Armstrong, m.a.
Logic and Metaphysics,	George Sidney Read, m.a.
Chemistry,	Maxwell Simpson, b.a., m.d., f.r.s.
Natural History,	Joseph Reay Greene, b.a., m.d., m.r.i.a.
Geology and Mineralogy,	Robert Harkness, f.r.ss.l. & e., f.g.s.
Modern Languages,	Raymond de Vericour, m.a.
Jurisprudence & Political Economy,	Richard Horner Mills, m.a.
English Law,	Mark S. O'Shaughnessy, m.r.i.a., f.r.s.l.
Anatomy and Physiology,	J. J. Charles, m.a., m.d., m.ch.
Medicine,	Denis C. O'Connor, b.a., m.d.
Surgery,	Wm. K. Tanner, m.d., f. & l.r.c.s.i.
Materia Medica,	Matthias O'Keeffe, m.a., m.d.
Midwifery,	Joshua R. Harvey, b.a., m.d.
Engineering,	Alexander Jack, m.a.

Lecturers.

Medical Jurisprudence,	Mark O'Shaughnessy, m.r.i.a., f.r.s.l. and Matthias O'Keeffe, m.a., m.d.

Assistant to Professor of Chemistry, Cornelius O'Keeffe, County and City Analyst.

Demonstrators of Anatomy, Senior—William Jennings, m.d., m.ch. Junior—Charles Y. Pearson.

Council of the College.

The President.

Professor Tanner.	Professor Jack.	Professor Niven.
,, Harvey.	,, Simpson.	,, Armstrong.

Officers.

Registrar,	Alexander Jack, m.a.
Bursar,	John England, m.a.
Librarian,	Richard Caulfield, ll.d.

Steward and Superintendent of the Botanic Garden, . John Sullivan.

General Regulations.

The College Session, 1876–77.—The *First Term* commenced on the 17th of October, 1876, and ended on the 23rd of December.

The *Second Term* commenced on the 8th of January, 1877, and ended on the 24th of March.

The *Third Term* commenced on the 9th of April, 1877, and ended with the Session, on the 9th of June.

N.B.—The Easter Recess for the Medical Faculty commenced on the Tuesday before Easter, and ended on Easter Monday.

Registrar's and Bursar's Offices.—The Registrar's Office is open from 12 to 1 o'clock on every Tuesday and Thursday, and from 1 to 2 o'clock on every Wednesday and Friday during Term.

The Bursar's Office is open from 12 to 1 o'clock on every Monday, Wednesday, and Friday during Term.

Library and Museums.—The Library is open daily to Students between the hours of 9 a.m. and 4 p.m., except on Saturdays, when it is closed at 1 o'clock.

The Museums of Natural History and Geology and Mineralogy are open daily between the hours of 9 a.m. and 3 p.m., except on Saturdays, when they are closed at 12 o'clock. The Anatomical and Pathological Museums are open daily.

Appendix A.

No. I. General Regulations of College, &c.

STUDENTS.

The Students of the College are either Matriculated or Non-Matriculated.

MATRICULATED STUDENTS.—To become a *Matriculated Student*, it is necessary to pass the General Matriculation Examination which commenced in the Session of 1876–77, on Tuesday, the 17th of October, 1876, at 9 o'clock, A.M.

Candidates for Matriculation are requested to send their names to the Registrar, at least *three days* before the commencement of the Examination, stating at the same time the Faculty or Department which they propose to enter.

Before being admitted to Examination they are required to pay the *College Fees* for the year, amounting to Ten Shillings for each Faculty or Department. These will be returned, on application, to such as fail to pass the Examination.

No Student will receive a Certificate of Matriculation until he has paid the whole of the *Class Fees* for the Session, and commenced attendance on Lectures.

The following are the Subjects in which Candidates are examined :—

For the Faculties of Arts, Medicine, and Law.

Greek :

Grammar. (Curtius' Greek Grammar recommended.)

Any one of the following Authors which the Candidate may select :—

Demosthenes—Olynthiac Orations.
Euripides—Alkestis.
Homer—Iliad, Books I. and II.
Xenophon—Anabasis, Books I. and II.
Lucian—Walker's Selections.

Latin :

Any one of the following Authors which the Candidate may select :—

Virgil—Æneid, Books I. and II.
Sallust—Conspiracy of Catiline.
Cæsar—Gallic War, Book I.

History :

Outlines of Grecian History. (Smith's History of Greece recommended.)
Outlines of Roman History. (Liddell's History of Rome recommended.)

Geography :

Outlines of Ancient and Modern Geography.

English :

Grammar—
(1.) The principles of Etymology and Orthography.
(2.) The leading Rules of Syntax.

Composition, and writing from dictation.

Mathematics :

Arithmetic—Principles of Notation. Vulgar and Decimal Fractions. Definition of the term Ratio and Proportion. The Rule of Proportion, with its commercial applications, including Simple Interest.
Algebra—Including the addition, subtraction, multiplication, and division of Algebraic Expressions, and the solution of Simple Equations.
Euclid—Books I. and II., with the definitions and axioms.

For the Department of Civil Engineering.

The Outlines of Modern Geography.

Grammar.

Mathematics :

Arithmetic—Principles of Notation. Vulgar and Decimal Fractions, with the reasons of the different rules. Rule of Proportion, with its commercial applications. Extraction of the Square Root, both of whole numbers and decimals.
Algebra—Including the addition, subtraction, multiplication, and division of Algebraic Expressions, Fractions, and solution of Simple Equations.
Geometry—As much as is contained in Euclid, Books I., II., III., IV. Wilson's Elementary Geometry (3rd Edition) is recommended.

NON-MATRICULATED STUDENTS.—Those who desire to attend any of the Lectures in the College may do so, without matriculating, or passing any of the College Examinations, on paying the Fees for those Lectures, together with a College Fee of Five Shillings.

They are entitled to the use of the Library, on subscribing the Library Regulations.

They are not eligible for Scholarships or Prizes, and do not enjoy any of the other privileges of Matriculated Students; but the Professors may recommend the Council to grant Certificates of Honour to the most distinguished.

STUDENTS FROM OTHER COLLEGES.—Students who have pursued part of their studies in one of the Queen's Colleges, or in any University capable of granting Degrees in the Faculties of Arts, Law, and Medicine, are permitted, on producing testimonials of their College standing and conduct, to take corresponding rank in this College, and to compete for Scholarships of the corresponding year; provided that they shall not hold at the same time a Scholarship, or any other office of emolument, in any other University or College.

RESIDENCES.

There is no accommodation for the residence of students within the College, but it is provided by the Statutes that every Matriculated Student, being under the age of Twenty-one Years, shall reside, during the College Terms, with his parent or guardian, or with some relation or friend, to whose care he shall have been committed by his parent or guardian, or in one of the Boarding-houses licensed by the President of the College and arranged for the reception of students, who are then placed under the moral care and spiritual charge of the Deans of Residences of their respective creeds.

The Terms for Board and Lodging are generally at the rate of from £30 to £40 a year.

The following are the Protestant Deans of Residences:—

Church of Ireland, ...	Rev. George Webster, D.D.
General Assembly of the Presbyterian Church in Ireland, . . .	Rev. William Magill.
Wesleyan Methodists, . . .	Rev. John D. Powell.
Non-Subscribing Presbyterian, . .	Rev. W. Whitelegge, M.A.

The Deans are designated as they wish themselves to be called.

FEES.

The Fees paid by Students are of two kinds: Collegiate Fees and Class Fees. The following are the regulations concerning the payment of Fees:

1. All Fees are to be paid to the Bursar, at his Office in the College.
2. Candidates for Matriculation are required to pay their *College Fees* before being admitted to Examination.
3. Students must pay their Class Fees before being admitted to the Classes; and if Candidates for Scholarships, must do so on or before the day previous to the date of Examination.
4. Half the Class Fees are returned to Scholars; but this rule does not extend to Exhibitioners.

COLLEGIATE FEES.—For the First Year the College Fees are *Ten Shillings;* for the Second and subsequent years Five Shillings. Students who wish to borrow books from the Library are obliged to *deposit* One Pound with the Bursar.

CLASS FEES.—The ordinary fee paid for a course of Lectures is £2. For English and Logic the fee is only £1. For Practical Anatomy, Practical Chemistry, and the first course of Anatomy and Physiology, the fee is £3.

With reference to the Fee payable for repeated attendance on the same Course of Lectures, the following rule has been laid down in the Statutes:—

"The Fees payable by Students, whether Matriculated or Non-matriculated, to the several Professors, for attendance on the several Pass Courses of Lectures or instruction, which are now or may be hereafter prescribed by the College Council, for any Degree or other University distinction, shall be £1 for each

Appendix A. No. I. General Regulations of College, &c.

Course extending over one Term only, and £2 for each Course extending over more than one Term of a Session, when attended for the first time, and £1 for each re-attendance on the same; except that the Fee payable for the Course of Anatomy and Physiology shall be £3 when attended for the first time, and £2 for every subsequent attendance; except also, that the Fee payable for Practical Anatomy or Practical Chemistry, shall be £3 for each attendance."

In the case of Students receiving special instructions, not prescribed as a qualification for a Degree or other University distinction, or attending Honor Courses of Lectures, the Council shall have power to fix the amount of the Fee to be paid by each Student; provided that the Fee to be paid for any Honor Course of Lectures which Students are entitled to substitute for a prescribed Pass Course, shall in no case be less than £2.

Lecture Hours.

Table of the Subjects and Hours of Lecture.

Name of the Class.	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.	Saturday.
Senior Greek,	9	9	10	–	9	–
Junior Greek,	10	–	9	9	10	–
Extra Greek,	–	10	–	10	–	–
Senior Latin,	10	–	9	–	10	–
Junior Latin,	9	10	10	10	–	–
Extra Latin,	–	11	–	11	–	–
English Language,	–	11	–	11	–	10
English Literature,	–	12	–	12	–	11
History,	12	–	12	–	12	–
Medical French,	12	–	12	–	12	–
Senior French (*Arts and Engineering*),	1	–	1	–	1	–
Junior French (*Arts and Engineering*),	2	–	2	–	2	–
German or Italian,	–	2	–	2	–	2
Logic,	–	11	–	11	–	9
Metaphysics,	–	1	–	1	–	10
Political Economy and Jurisprudence,	–	11	11	11	11	–
Senior Mathematics,	1	–	1	–	1	–
Junior Mathematics,	12	–	12	–	12	–
Third Year's Mathematics,	2	–	2	–	2	–
Mathematical Physics,	–	–	12	–	12	–
Mathematical Physics (*Engineering*),	2	–	1	–	2	–
Experimental Physics, Senior,	11	–	11	–	11	–
Experimental Physics, Junior,	–	11	–	11	–	–
Engineering Physics,	–	2	–	2	–	–
Physics (Honor),	–	12	–	12	–	–
Chemistry,	11	–	11	–	11	–
Practical Chemistry,*	2	–	2	–	2	–
Zoology and Botany,	3	–	3	–	3	–
Geology and Mineralogy,	–	2	–	2	–	12
Senior Engineering,	12	–	12	–	12	–
Junior Engineering,	–	10	–	10	–	10
Geometrical Drawing,	10	–	10	–	10	–
Office Work (10 till 2),	–	10	–	10	–	10
Anatomy and Physiology,	1	1	1	1	1	–
Practical Anatomy,	12	12	12	12	12	–
Medicine,	3	–	3	–	3	–
Surgery,	–	4	–	4	–	1
Materia Medica,	–	3	–	3	–	12
Midwifery,	4	4	4	–	4	–
Medical Jurisprudence,	–	12	–	12	–	12
English Law (1st year),	–	11	11	11	11	–
English Law (2nd year),	–	3	3	3	3	–
English Law (3rd year),	–	9	9	9	9	–
Jurisprudence,	–	1	1	1	1	–
Civil Law,	–	4	4	4	4	–
Constitutional and International Law,	–	10	10	10	10	–

* Whenever it becomes necessary to divide the Practical Chemistry Class, the hours for the Second Class are at two on Tuesday and Thursday, and eleven on Saturday.

College Scholarships.

There are at the disposal of the Council Forty-six Junior and Eight Senior Scholarships.

The former are held by Students who have not yet taken the Degree of B.A.; the latter by Students who have obtained the Degree of B.A.

Of the Junior Scholarships—

Thirty,	of the value of £24	each, are appropriated to the	Faculty of Arts. (See p. 34).
Five,	,, ,, £20	,, ,,	School of Engineering. (See p. 40).
Eight,	,, ,, £25	,, ,,	Faculty of Medicine. (See p. 49).
Three,	,, ,, £20	,, ,,	Faculty of Law. (See p. 43).

Of the Senior Scholarships—

Seven,	of the value of £40	each, are appropriated to the	Faculty of Arts. (See p. 34).
One,	,, ,, £40	,, ,,	Faculty of Law. (See p. 43).

All these Scholarships are tenable for only one year, with the exception of the Scholarships of the Second Year in Arts, which are tenable for two years.

Conditions of Candidature and Tenure.

1. Candidates for Scholarships are required to pay on or before the day previous to the date of Examination, the College and Class Fees for the year in the corresponding Faculty. They must also procure a certificate to that effect from the Bursar, and be prepared to show it on their admission to Examination.
2. Scholarships of any year are tenable by Students who have duly completed the previous part of their Course by attending the requisite Courses of Lectures, and passing the ordinary College and University Examinations.

   Note.—In the case of candidates for Scholarships in the Faculty of Medicine, in which the Curriculum is not obligatory, the Council reserve to themselves the power to decide in the case of each candidate, whether his previous course of study has been sufficient to render him eligible.
3. A Student, as a rule, cannot hold two Scholarships at once; but if he be a Candidate for both the Junior Scholarships in Arts of the same year, and stand first on each list, he may hold both the Scholarships.
4. Half the ordinary Class Fees are returned to Scholars.
5. Scholars must complete their attendance during the Session, pass the Sessional Examinations, and observe such rules as the Council may from time to time enact.
6. In the Faculty of Medicine, Scholars must attend the Classes recommended for their year of study, in the order of the Curriculum.
7. Scholars and Exhibitioners have certain statutory duties; such as taking charge of the Class-rolls, registering the attendance of the Students, assisting the Professors in the maintenance of discipline and good conduct in the Students, and for the general business of the College.

[Table.

Appendix A. No. I. General Regulations of College, &c.

TABLE OF THE TIMES AND SUBJECTS OF THE SCHOLARSHIP EXAMINATIONS FOR THE SESSION 1876–77.

Examination Days.	From 9 to 12 o'clock.	From 2 to 5 o'clock.
Thursday, October 18th,	Geometrical Drawing. Surveying.	Geology and Mineralogy. Surgery.
Friday, October 19th, .	Latin. Chemistry.	Mathematics. Practical Chemistry. Midwifery.
Saturday, October 20th,	Modern Languages. Political Economy. Mathematics (Geometry Paper).*	Pathology. Latin.
Monday, October 22nd,	Greek. Materia Medica. Medical Jurisprudence.	Greek. Zoology and Botany. Practical Anatomy. History and English Lit. (*Senior Scholarship.*)
Tuesday, October 23rd,	English Language, History and Geography (*1st year*). English Language, &c. (*2nd and 3rd year.*) Natural Philosophy.	Anatomy and Physiology. Logic and Metaphysics.
Thursday, Nov. 29th, .	English Law.	Civil Law.

* The University Prizes in Geometry were decided on this paper, which was also taken into account in deciding the first year's Mathematical Scholarships.

College Exhibitions and Prizes.

The Council are authorized to grant in certain cases Exhibitions to Candidates who may have failed to obtain Scholarships at the Scholarship Examination.

In the last week of October is held an Examination for a Prize in Ancient History. Subjects recommended for study: Rawlinson's Translation of Herodotus (the text only); Liddell's History of Rome; the Students' Gibbon, Chapters 1–3.

In May and June are held General Examinations in the subjects lectured upon during the Session; and Prizes of Books are awarded by the Council to the most distinguished Students in each Class.

Three Exhibitions, each of the value of £15, one in Practical Medicine, one in Practical Surgery, and one in Practical Midwifery, were offered for competition at the close of the Lectures in the Faculty of Medicine for the Session of 1876–77.

University Exhibitions and Prizes.

Exhibitions and Prizes are also given by the Senate of the University to Students, in the Faculties of Arts and Medicine, and in the School of Engineering, who shall most distinguish themselves at the various University Examinations.

Faculty of Arts.—The following are to be competed for immediately after General Matriculation:—

Two Prizes for English Prose Composition and two for Geometry, given annually by the Senate of the University. The First Prize in each is £3 worth of Books; the second £2 worth of Books.

The subjects of Examination for the University Geometry Prizes are—

The first Four and Sixth Books of Euclid, with Definitions of the Fifth Book, and Geometrical deductions.

These Prizes are open to Students who have just passed the Matriculation Examination for the first time.

Three Exhibitions of £20 a year for three years, three Exhibitions of £15 a year for three years, and two Exhibitions of £10 a year for three years, will be competed for annually in the Faculty of Arts. The three £20 Exhibitions will be awarded to the Candidates who stand foremost in order of merit from each College, at the first University Examination in Arts; and the three £15 Exhibitions to the Candidates who stand second in order of merit from each

College: provided that their names appear in the First Class of the Division List at that Examination. Of the two £10 Exhibitions, one will be awarded to the best answerer in Mathematical Science, and the other to the best answerer in the Ancient Classics, at the first University Examination. The £10 Exhibitions are open to the competition of Candidates from all the Colleges, and may be held along with one of the larger Exhibitions.

Each Candidate will be deemed a Student of that College in which he shall have attended the Lectures of the second Session; and no Student will be admitted to the competition who shall have allowed more than one academic year to intervene between the time that he entered upon the studies of the second Session and the time of competition.

The first instalment of each Exhibition will be paid at the time of competition; the second when the Exhibitioner takes the Degree of B.A. in the Queen's University, provided he graduate with honors, and within two academic years; and the third when he takes the Degree of M.A. in the Queen's University, provided he obtain it within three academic years from the time of competition.

University Prizes in Composition, open to the Competition of Graduates and Undergraduates.

Two Prizes for English Prose Composition, one of £10 worth of Books, and the other of £5 worth of Books, have been founded, and are open to the competition of all members of the University who shall not have been graduates for more than three years at the time of competition, and who shall not have already twice obtained one or other of these Prizes.

University Prizes in Composition, open to the Competition of all Undergraduates.

Two Prizes in Composition, one for English Prose, the other for Greek or Latin Prose, and each consisting of £5 worth of Books, have been founded, and are open to the competition of all undergraduates, provided that neither the English nor the Classical Prize be awarded oftener than twice to any Student.

Faculty of Medicine.—Two exhibitions, one consisting of two instalments of £20 each, and the other of two instalments of £15 each, will be competed for annually in the Faculty of Medicine. These exhibitions will be awarded for proficiency in the non-professional part of the first University Examination in Medicine: the £20 exhibition to the best answerer absolutely, in whichever of the Colleges he may have been educated; and the £15 exhibition to the candidate who is first in order of merit of the competitors from the other two colleges; provided that their names appear in the First Class of the Division List at that examination.

Each Candidate will be deemed a student of that College in which he shall have attended the Lectures of the second session; and no student will be admitted to the competition who shall have allowed more than a year to intervene between the time that he entered on the studies of the second year and the time of competition.

The exhibitions in Medicine will be paid in two equal instalments: one at the time of competition; the other when the exhibitioner takes the Degree of M.D. in the Queen's University, provided that he graduate with honors, and within three academic years from the time of competition.

Prize in Composition, limited to the Competition of Undergraduates in Medicine.

A prize of £5 worth of books has been founded, for a thesis on a subject to be prescribed, and is limited to the competition of the Undergraduates in Medicine who shall not have already twice received the prize.

The subjects on which the competitors for composition prizes are to write, will be announced on or before the first of June in each year; the compositions, with fictitious signatures, are to be sent in to the Secretary of the University, on or before the first of the following September, and the successful competitors will be declared at the next Public Meeting of the University.

School of Engineering.—Two Exhibitions, one of £20 a year for two years, and the other of £15 a year for two years, will be competed for annually in the School of Engineering. These Exhibitions will be awarded at the first University Examination in Engineering: the £20 Exhibition to the best answerer

Appendix A.

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absolutely, in whichever of the Colleges he may have been educated, and the £15 Exhibition to the Candidate who is first in order of merit of the competitors from the other two Colleges: provided that their names appear in the First Class of the Division List at that Examination.

Each Candidate will be deemed a Student of that College in which he shall have attended the Lectures of the second Session; and no Student will be admitted to the competition who shall have allowed more than a year to intervene between the time that he entered on the studies of the second year and the time of competition.

The first instalment of each Exhibition will be paid at the time of competition; the other when the Exhibitioner takes the Diploma in Engineering of the Queen's University, provided that he take honors with it, and obtain it within two academic years from the time of competition.

Other Prizes.

The Early English Text Society's Prizes.

With a view to the encouragement of the study of Early English, the Early English Text Society has kindly offered for the competition of the Students of Queen's College, Cork, valuable prizes consisting of the rare works in Early English published under its auspices.

An examination for these prizes was held on the 23rd of April, 1877, and was open to all Matriculated Students of the College who were not Graduates at that date, the following being the course appointed:—

1. Outlines of the History of the English People, to the accession of Henry IV.
2. The History of English Literature, to the death of Chaucer.
3. Outlines of Anglo-Saxon Grammar (Rask recommended).
4. Morris—English Accidence, Caps. III., IV., and V.
5. Chaucer—The Prologue to the Canterbury Tales.

The New Shakspere Society's Prizes.

The New Shakspere Society in order to encourage the study of Shakspere's works, and of the English Drama, has also offered copies of the works published by it as Prizes for competition among Students of the College.

An examination for these prizes was held on the 23rd April, 1877, and was open to all Matriculated Students of the College who were not Graduates at that date. The following was the course appointed:—

1. The History of the English Drama (in outline).
2. The Literary History of the Elizabethan Age.
3. A critical knowledge of—I. Much Ado about Nothing. II. Richard III. III. King Lear. IV. Timon of Athens.

See Appendix D., pp. 118–119, for the Examination Papers set to Candidates for these Prizes at the last Examination.

Degrees.

The Certificates, Diplomas, and Degrees granted by the Senate of the Queen's University are as follows:—

In the Faculty of Arts—
- The Diploma of Licentiate.
- ,, Degree of Bachelor (B.A.)
- ,, ,, Master (M.A.)

In the Faculty of Law—
- Certificate of the Law Professors.
- The Diploma in Elementary Law.
- ,, Degree of Bachelor (LL.B.)
- ,, ,, Doctor (LL.D.)

In the Faculty of Medicine—
- The Degree of Doctor (M.D.)
- ,, ,, Master in Surgery (M.Ch.)
- ,, Diploma of Midwifery.

In the School of Civil Engineering—
- The Degree of Bachelor (B.E.)

No. II.—Faculty of Arts.

Degrees.

1. Degree of B.A.*

Students intending to proceed to this degree in the Queen's University must matriculate in one of the Queen's Colleges, and complete the course of study prescribed by the University Senate, by attending the College Lectures in each Session, and passing the Sessional Examinations.

The B.A. Examination takes place in the September after the close of the third Session, and Candidates must have previously passed the "First Examination in Arts," a preliminary examination which takes place at the commencement of the Third Session.

Course for the Degree of Bachelor in Arts.

Candidates for the Degree of Bachelor in Arts are required—

1. To have been admitted Matriculated Students of the Queen's University in the Faculty of Arts.
2. To have subsequently studied in one of the Colleges of the Queen's University the Course herein prescribed.
3. To have passed the University Examinations herein prescribed.

The Course for the Degree of Bachelor in Arts shall extend over three Sessions, and shall comprise attendance on the following curriculum:—

FIRST SESSION.

English (One Term).	A Modern Continental Language.
Greek.	Mathematics (First Course).
Latin.	

SECOND SESSION.

Logic (One Term).	Natural Philosophy.

Along with any two of the following:—

Greek (Second Course).	Modern Continental Languages (Second Course).
Latin (Second Course).	Mathematics (Second Course).

THIRD SESSION.

English Language and Literature.	Chemistry.
Metaphysics, or History, or Political Economy (Two Terms).	Zoology, or Botany.

Attendance on these Courses shall, in all cases, be understood to include passing such examinations as may be appointed by the College Council, and the catechetical parts of the Courses of Lectures.

Candidates for the Degree of Bachelor of Arts shall reside at their respective Colleges during at least the first two terms of each Session, but may be exempted from residence during the third term by a special grace of the College Council.

Third year's Students may substitute attendance on one or on two Courses of Honor Lectures, for a like number of the Courses above set down for study in the third Session.

Candidates for the Degree of Bachelor in Arts shall pass two University Examinations—a Preliminary and a Degree Examination.

The Course for the Preliminary Examination shall include Greek, Latin, a Modern Continental Language, and Mathematical Science. Students who have completed their second Session must pass this Examination before rising to the third year, unless prevented by illness or other inevitable accident, in which case the Senate may admit them to a Supplementary Examination.

Candidates who have completed the Undergraduate Course, may offer themselves at the Degree Examination for graduation either with Honors or without Honors.

If they seek to graduate with Honors, they may select for their Examination any one of the following groups:—

Greek and Latin.	Experimental Science.
Modern Continental Languages.	Natural Science.
Mathematical Science.	

* Degrees in Arts, conferred by the Queen's University in Ireland, are recognised by the University of Durham, by St. Bee's College, Whitehaven, and by St. Aidan's College, Birkenhead, in the case of Theological Students preparing for Holy Orders in the Established Church.

His Royal Highness the Commander-in-Chief has approved of Graduates of the Queen's University being in future exempted from the usual Examination for direct Commissions; and also of the First University Examination being accepted in lieu of that for the Royal Military College, Sandhurst.

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No. II. Faculty of Arts.

Or any three of the following:—

English Language and Literature.	Political Economy.
Metaphysics.	Logic.
History.	

Candidates who seek the Degree without Honors, may select for their Examination any group of the subjects from the following lists, provided the sum of the numbers attached in this list to the selected subjects be at least four:—

English Language and Literature,	2	Latin,	1
Mathematical Science,	2	Each Modern Continental Language,	1
Experimental Physics,	2	Logic,	1
Chemistry,	2	Metaphysics,	1
Zoology,	1	History,	1
Botany,	1	Political Economy,	1
Greek,	1		

English Composition will form a part of all University Examinations.

2. Degree of M.A.

Candidates for the Degree of M.A. are admitted to the University Examinations for that Degree one year after having taken the Degree of B.A.

Course for the Degree of Master in Arts.

Bachelors in Arts of one year's standing, may offer themselves for Examination for the Degree of Master in Arts, and may select for their Examination any one of the following groups:—

Greek and Latin.	Experimental Science.
Modern Continental Languages.	Natural Science.
Mathematical Science.	

Or any three of the following:—

English Language and Literature.	Political Economy.
Metaphysics.	Logic.
History.	

This Ordinance supersedes former Ordinances prescribing the curriculum for the Degree of Master in Arts.

Lectures.

The Lectures in this Faculty for the Session 1876–77, commenced on *Monday, the 23rd October*, 1876.

The following Table shows the days, hours of Lectures and fees for the ordinary course. In accordance, however, with the regulations of the University for the Degree of B.A., Students may substitute for one or two Courses in the third year a like number of Honor Courses:—

	CLASS.	Terms.	Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.	Fees. £	s.	d.
First Session.	English,	2	–	11	–	11	–	10	1	0	0
	Greek,	1, 2, 3	10	–	9	9	10	–	2	0	0
	Latin,	1, 2, 3	9	10	10	10	–	–	2	0	0
	Modern Languages,	1, 2, 3	2	–	2	–	2	–	2	0	0
	Mathematics (1st Course)	1, 2, 3	12	–	12	–	12	–	2	0	0
	College Fee,	–	–	–	–	–	–	–	0	10	0
Second Session.	Logic,	2	–	11	–	11	–	9	1	0	0
	Natural Philosophy,	1, 2, 3	11	–	11	–	11	–	2	0	0
	Greek (2nd Course),	1, 2, 3	9	9	10	–	9	–	2	0	0
	Latin ,,	1, 2, 3	10	–	9	–	10	–	2	0	0
	Modern Languages ,,	1, 2, 3	1	–	1	–	1	–	1	0	0
	Mathematics ,,	1, 2, 3	2	–	2	–	2	–	2	0	0
	College Fee,	–	–	–	–	–	–	–	0	5	0
Third Session.	English Language and Literature,	1, 2	–	12	–	12	–	11	2	0	0
	Chemistry,	1, 2, 3	11	–	11	–	11	–	2	0	0
	Metaphysics, or	1, 2	–	1	–	1	–	10	2	0	0
	History, or	1, 2	12	–	12	–	12	–			
	Political Economy,	1, 2	–	11	11	11	11	–			
	Zoology or Botany,	–	3	–	3	–	3	–	2	0	0
	College Fee,	–	–	–	–	–	–	–	0	5	0

Honor Courses.

By the regulations of the University Senate, a Student of the third year may substitute for two courses in the ordinary curriculum the same number of honor courses.

Under this Regulation Candidates are at liberty to substitute one or two of the following courses for a like number of the courses set down in the above table for study in the Third Session, viz.:—

Greek,	Geology & Physical Geography,
Latin,	French,
Pure Mathematics,	German,
Mathematical Physics,	Italian,
Experimental Physics,	Logic;

provided that the Rules of the College Council admit of their making this substitution, and provided further that the courses substituted are courses specially preparing Students for one or more of the Honor Examinations for the degree of B.A.

Candidates are allowed under the same conditions to attend Honor Courses on two of the subjects, Metaphysics, History, and Political Economy, as two of the courses of the Third Session. Candidates who avail themselves of this permission are at liberty to attend the third of these subjects as another course of the Third Session.

A similar interpretation applies to the courses of Botany and Zoology, which will count as two courses of the Third Session, provided that one of them be an Honor Course, attended under the conditions stated above.

Outlines of the Courses of Lectures Delivered by the Professors of the Faculty of Arts.

Literary Division of the Faculty of Arts.

The Greek Language.

Professor, E. Vaughan Boulger, M.A.

Junior Class: Monday, Wednesday, Thursday, and Friday.
Xenophon—Anabasis, Book IV. Euripides—Alkestis.
Second Year: Monday, Tuesday, Wednesday, and Friday.
Homer—Odyssey, Books I. to IV. Euripides—Hippolytus.
Demosthenes—In Midiam.
Third Year: Tuesday, Thursday.
Aristophanes—Aves. Plato—Protagoras. Thukydides, Book IV.
Exercises in Prose and Verse, according to the proficiency of the Students.

The Latin Language.

Professor, Bunnell Lewis, M.A., F.S.A.

Senior Class, Monday, Wednesday, and Friday:
Cicero—Tusculan Disputations, III.
Terence—Phormio.
Junior Class, Monday, Tuesday, Wednesday, and Thursday:
Horace—Epistles, beginning at Book I., Ep. 11.
Cicero—Tusculan Disputations, II.
Exercises in both Classes chiefly from Arnold's Introductions to Latin Composition.
Extra and Third Year's Class, Tuesday and Thursday:
Cicero—Pro Sestio.
Lucretius—Book V.

In this Class special attention is paid to original Composition, and to translation from English Authors into Latin.

Appendix A.

History, the English Language and English Literature.

No. II. Faculty of Arts.

Professor, GEORGE FRANCIS ARMSTRONG, M.A.

1st and 2nd Term. } History—Monday, Wednesday, and Friday.
2nd Term—The English Language—Tuesday, Thursday, and Saturday.
1st and 2nd Term. } English Literature—Tuesday, Thursday, Saturday.

History:

European History—From the Decline of the Roman Empire to the present time.

THE ENGLISH LANGUAGE.

The History of its development.

Books recommended:—

Morris—Historical Outlines of English Accidence.
Trench—Study of Words; English, Past and Present.
Marsh—Lectures on the English Language.
Rask—Anglo-Saxon Grammar (edited by Thorpe); or Vernon—Anglo-Saxon Guide.
Thorpe—Analecta Anglo-Saxonica.
Morris and Skeat—Specimens of Early English.
Morris—The Prologue to Chaucer's Canterbury Tales, and the Editor's Introduction.
Skeat—Specimens of English Literature.
Rushton—Rules and Cautions in English Grammar.
Max Müller—Science of Language.
Whately—Elements of Rhetoric.
Campbell—Philosophy of Rhetoric.

Essays and Translations will be required of the Students from time to time.

ENGLISH LITERATURE.

History and Criticism of the Literature of England from the earliest period to the present day.
The Lives of the Great English Writers.
The Epochs of Foreign Literature which have most affected the form and spirit of the Literature of England.

Books recommended:—

Morley—A First Sketch of English Literature.
Shaw—Manual of English Literature (edited by Dr. Smith).
Craik—History of English Literature.
Chambers—Cyclopædia of English Literature.
Hallam—Introduction to the Literature of Europe.
Taine—History of English Literature, translated by H. Van Laun.

Critical Essays on subjects treated of in the Lectures will be required of the Students at set times.

Modern Languages.

Professor, R. DE VERICOUR, M.A.

French Class (1st Division), Mondays, Wednesdays, and Fridays, at 12 o'clock.
Do. (2nd Division), Mondays, Wednesdays, and Fridays, at 1 o'clock.
Do. (3rd Division), Mondays, Wednesdays, and Fridays, at 2 o'clock.
German or Italian, Tuesdays and Fridays, at 2 o'clock.

TEXT BOOKS.

French—Textes classiques de la Littérature Française, par S. Demogeot. Fables de Lafontaine. Histoire de la Revolution Française, par Mignet. Histoire de la Littérature Française, par Demogeot. Weekly Lectures on the Grammar and Idioms.
Italian—Silvio Pelico. Tasso. Extracts from Macchiavelli, Guicciardini, Manzoni. Weekly Lectures.
German—Göethe's Ballads and Iphigenie. Schiller's Wilhelm Tell. National Literatur, von A. F. Villmar. Weekly Lectures.

Science Division of the Faculty of Arts.

Mathematics.

Professor, Charles Niven, M.A.

Junior Class, Monday, Wednesday, and Friday.
Subjects—Arithmetic, Algebra, Geometry, and Plane Trigonometry.

Second Year's Class, Monday, Wednesday, and Friday.
Subjects—Analytical Geometry, Trigonometry, Differential and Integral Calculus.

Third Year's Class:
Subjects—Geometry of three dimensions, Differential Equations, &c.
Exercises are regularly set in each of the Classes.

Logic and Metaphysics.

Professor, George Sidney Read, M.A.

2nd Term, Logic, Tuesday, Thursday, and Saturday.
1st & 2nd Terms, Metaphysics, Do. do. do.

LOGIC.

This Course consists of:—

I.—Lectures, Examinations, and Exercises in Aldrich's Compendium of Logic, occupying the early part of the Term, &c.

II.—A full discussion of Classification, the Theory of Hypothetical Syllogisms and of Induction, and the Analytic of Logical Forms, as contained in the works of Mill, Whately, Thompson, and Baynes.

Throughout the Course the Students will be expected to familiarize themselves with the reduction of arguments to their strict Logical Form by written exercises, which will be examined by the Professor.

METAPHYSICS.

This Course will embrace:—

I.—The Philosophy of the Inductive Sciences, illustrated by reference to Lord Bacon, Whewell, and Mill; and—

II.—The History of Mental Philosophy, comprising—

1st—The origin, progress, and development of Modern Philosophy anterior to the rise of the Scottish School.

2nd—A critical examination of the works of the more celebrated writers of that School.

3rd—A brief view of the present state of Philosophy in the British Islands and on the Continent.

Political Economy.

Professor, Richard Horner Mills, M.A.

Political Economy.—The nature and distribution of wealth, the principles which regulate Rents, Profits, and Wages; the Principles of Commerce, of Taxation, of the Funding System, and of Currency and Banking.

Books recommended:—

Adam Smith—Wealth of Nations.
Senior—Political Economy.
Fawcett's Manual of Political Economy.
John Stuart Mill—Political Economy.
Richard H. Mills—Lectures on Currency and Banking (Second Edition).
M'Culloch—Taxation and Funding (Third Edition).
Goschen on Foreign Exchanges.

The Course consists of Twenty-four Lectures, delivered in the months of December, February, and March; the Students are required in the intervals to prepare the subjects which will be pointed out by the Professor.

Appendix A.

No. II. Faculty of Arts.

Chemistry.

Professor, MAXWELL SIMPSON, B.A., M.D., F.R.S.

Monday, Wednesday, and Friday.

The Course is divided into Inorganic and Organic Chemistry.

In the first part are discussed the Laws of Combination and Affinity, Molecular Chemistry and Crystallography, and the History of the Non-Metallic and Metallic substances.

In the Organic portion of the Course will be considered the subjects of Organic Analysis, Organic Series, Compound Radicals and Types, Metamorphosis of Organic Bodies, History of special Animal and Vegetable Bodies.

In treating of the Laws of Chemistry, and the History of Inorganic and Organic Bodies, those points will be chiefly dwelt upon which have a practical bearing in the Arts, Medicine, Engineering, and Agriculture. Thence, during the Course, attention will be directed to the application of Chemistry to Medicine and Physiology, to Metallurgic Operations, Chemical Manufactures, Building Materials, Soils, Manures.

Fee, for each Sessional Course, £2. Each subsequent Course in Medicine, £1.

Text Books recommended—Roscoe, Williamson, Fownes, Miller, Regnault, Naquet; Schorlemmer's Chemistry of Carbon Compounds; Galloway—Qualitative Analysis; Bowman—Practical Chemistry; Armstrong—Organic Chemistry.

Analytical Chemistry:

The Chemical Laboratory is open daily, except on Saturdays, from 10 to 4 o'clock, under the superintendence of the Professor, to students desirous of prosecuting an extended course of qualitative and quantitative analysis, and for the purpose of original investigation in connexion with the arts, or in the higher departments of Scientific Chemistry.

Natural Philosophy.

Professor, JOHN ENGLAND, M.A.

Experimental Physics (Senior):

Text Books—Newth's Mechanics; Galbraith and Haughton's Manuals of Astronomy and Optics; Jamin, Traité de Physique.

Experimental Physics (Junior):

Text Books—Ganot, Traité de Physique.

Mathematical Physics:

Text Books—Duhamel's Mecanique. Parkinson's Optics. Brinkley's Astronomy.

Engineering Physics:

Text Books—Tate's Exercises in Mechanics; selections from the works of Mosely, De Pambour, Weisbach; Twisden's Practical Mechanics, &c.

Natural History.

Professor, JOSEPH REAY GREENE, B.A., M.D.

Monday, Wednesday, and Friday.

The Professor of Natural History delivers a course of Lectures on Zoology and Botany.

Students may obtain Certificates of Attendance on either or both of these subjects. The Zoological part of the course will extend from the first Lecture-day in November to the end of February. The Botanical Lectures will occupy the remainder of the Session.

Under Zoology will be discussed the Principles of Biology.

ZOOLOGY.

GENERAL ZOOLOGY.—Advantages, data, methods, definition and divisions of the science. Animal morphology and physiology. Systematic zoology.

GENERAL ANATOMY.—The tissues of animals; simple and compound tissues; systems of simple tissues; inner and outer tissues; lower and higher tissues. Indifferent tissues; epithelial tissues; connective tissues; contractile tissues; nervous tissues.

PHYSIOLOGICAL ANATOMY AND SPECIAL PHYSIOLOGY.—The organism, its apparatus, organs (compound, simple, and elementary), and physiological units. Structure and function; modes of function. The organism, as dependent on supplies of matter from without and the action of incident forces; transmutations of energy effected by the organism; internal and external work. Organs of nutrition; metamorphosis of tissue. Organs of assimilation:—the blood; organs of circulation and sanguification; organs of respiration; organs of alimentation; organs of secretion. The nervous system and organs of sense. Organs of motion and support. Electric organs. Organs of generation.

HOMOLOGIES OF ANIMALS.—Type or plan of structure; the relative position of parts. Morphological units. Antimeres. Metameres and parts of metameres. Layers of the germ and their derivatives. Outgrowths and other processes. Anterior and posterior, right and left, dorsal and ventral, neural and hæmal, actinal and abactinal regions.

SYNTHETIC MORPHOLOGY.—Forms of simple animals, as resulting from their (*a*) symmetry, (*b*) predominant directions of growth, and (*c*) the production of external processes. Asymmetrical animals. The principal modes of animal symmetry:—symmetry of the point, of the line, and of the plane; intermediate forms; doubly symmetrical animals. The various forms of compound animals.

DEVELOPMENT OF ANIMALS (ONTOGENY).—Embryogenesis and metagenesis. Direct development. Development with metamorphosis. Fission. Gemmation. Alternation of generations. Pædogenesis. Other modes of development. Ontogeny in relation to animal morphology.

THE HIGHER PHYSIOLOGY.—Law of inheritance. Variation of animals. Distribution. Animal Palæontology:—appearance, succession, extinction, and persistence of animal groups. Origin of species; phyllogeny; relation of phyllogeny to ontogeny.

ZOOLOGICAL CLASSIFICATION.—Its object, data, difficulties, methods, and results. Characters of animals. Groups of animals. Zoological nomenclature. Definition of animal groups. Verification of zoological systems.

INVERTEBRATE ANIMALS.—Protozoa and Metazoa (Cœlentera and the higher Invertebrata). Classes of Invertebrata:—Rhizopoda, Gregarinæ, Infusoria, Spongiæ, Hydrozoa, Anthozoa, Ctenophora, Echinoderma, Enteropneustæ, Gephyriæ, Nemathelminthes, Rotatoria, Platyelminthes, Annulata, Crustacea, Insecta, Cephalopoda, Cephalophora (Heteropoda, Gasteropoda, Pteropoda and Scaphopoda), Lamellibranchiata, Brachionopoda, and Bryozoa. The provinces of the higher Invertebrata:—Echinoderma, Helminthes, Annulata, Arthropoda, and Mollusca.

VERTEBRATE ANIMALS.—Comparison with invertebrates. Doubtful position of Tunicata. Classes of Vertebrates:—Fishes, Batrachians, Reptiles, Birds, and Mammals. Provinces of Vertebrata:—Branchiata (or Ichthyopsida), Monocondyla (or Sauropsida), and Vivipara.

BOTANY.

GENERAL BOTANY.—The parts of plants; Protoplasm and vegetable cells; Tissues of plants. Life of plants. Classification of plants. Distribution of plants.

CRYPTOGAMIC BOTANY.—Cryptogams: Algæ; Mycetes; Mosses and allied plants; Vascular Cryptogams. Homologies of Cryptogams.

GENERAL MORPHOLOGY OF PHÆNOGAMS.—The Stem. Buds and Branches. Roots. Leaves. Flowers. The Fruit and Seed. Homologies and development of Phænogams.

SPECIAL MORPHOLOGY OF PHÆNOGAMS.—Gymnosperms and Angiosperms. Dicotyledons—Thalamiflorals; Disciflorals; Calyciflorals; Gamopetals; Apetals. Monocotyledons—Epigynous Monocotyledons; Apogynous Monocotyledons.

Those who wish fully to profit by the above Lectures would do well to read, before attending them, Huxley's Lessons in Elementary Physiology; Mivart's Lessons in Elementary Anatomy; and Oliver's Lessons in Elementary Botany.

Geology and Mineralogy.

Professor, ROBERT HARKNESS, F.R.SS.L. & E., F.G.S.

Tuesday, Thursday, and Saturday.

General Structure of the Earth; the causes at present in operation which modify its surface; Nature of Rocks which enter into composition with the crust of the Globe; description and classification of Sedimentary Deposits;

Appendix A.

No. II. Faculty of Arts.

Organic Remains; Physical Geography of the Earth during the several geological epochs; characters and nature of Igneous, Plutonic, and Metamorphic Rocks; Mineral Veins—their contents and mode of occurrence; application of Geology to Engineering and Mining.

Forms, Structure, Physical and Chemical characters of Minerals; descriptions of the most important simple minerals—circumstances and conditions under which they are found.

Text Books—Lyell's Students' Elements of Geology—Herschell's Physical Geography—Nicol's Manual of Mineralogy.

Scholarships.

In the Faculty of Arts, there are Thirty Junior and Seven Senior Scholarships. Of the former there are awarded—

To Students of the first year, 5 in Literature and 5 in Science.
" second " 5 " 5 "

The Scholarships of the second year are held for two years under certain conditions.

The Senior Scholarships in Arts are tenable only by Graduates of less than two years' standing from the time of taking the Degree of B.A. They are thus appropriated:—

One in the Languages, Literature, and History of Ancient Greece and Rome.

One to Modern Languages, Literature, and History, viz., English Language, Literature, and Composition; European and English History; the French Language, with German or Italian.

One to Mental and Social Science, viz., Logic, Metaphysics, and Political Economy.

One to Mathematics, viz., Pure Mathematics.

One to Natural Philosophy, viz., Experimental Physics, and Mixed Mathematics.

One to Chemistry, viz., Theoretical and Practical Chemistry.

One to Natural History, viz., Zoology and Botany, Geology, and Physical Geography.

Subjects of Examination for Literary Scholarships of the First Year.

The Greek Language:

Homer—The Iliad, Books I., II., III., IV., V., and VI.
Euripides—Hecuba.
Herodotus, Book II.
Xenophon—The Anabasis, Books I., II., III.
Greek Prose—Translation of short sentences from English into Greek.

The Latin Language:

Virgil—First six Books of the Æneid; the Georgics.
Horace—First two Books of the Odes, the Satires, and the Epistles, Books I., II.
Cicero—De Senectute, De Amicitiâ.
Sallust—Conspiracy of Catiline, and Jugurthine War.
Cæsar—The Gallic War, Books V., VI.
Latin Prose—Re-translations from English into Latin, of portions of Cicero.
N.B.—The Examination in Greek and Latin was conducted partly *vivâ voce*, and partly by printed questions.

The English Language:

Original Essays on subjects proposed by the Examiner.
English Grammar (Bain's English Grammar recommended). History of the English Language—Craik's Outlines of the History of the English Language.

History and Geography:

Grecian History to the Death of Alexander the Great (Smith's History of Greece recommended).
Roman History to the Accession of Augustus (Liddell's History of Rome recommended).
Outlines of Ancient and Modern Geography.
Modern Geography (Clyde's School Geography recommended).

Subjects of Examination for Literary Scholarships of the Second and Third Years.

The Greek Language:

Sophokles—Oedipus Rex.	Herodotus, Book I.
Plato—Phaedon.	

Prose Composition.

The Latin Language:

Virgil—Eclogues and Æneid.	Juvenal—Satires I., III., VIII., X.,
Horace.	XIII., XIV.
Terence—Heauton Timorumenos.	Livy, Book IV.
Cicero—Tusculan Disputations.	Tacitus—Histories, Book I.

Composition in prose and verse.

The English Language:

Morris—Historical outlines of English Accidence, Chaps. I., II., III., IV., V.
Rask—Anglo-Saxon Grammar, edited by Thorpe.
The English of Chaucer, as illustrated by the Prologue to the Canterbury Tales. Morris's Edition, with the Editor's Introduction.
The History of the English People, to the accession of Henry IV.
English Composition.

The French Language:

Molière—L'Avare; Le Misanthrope.
Lafontaine—Fables.
Histoire de la Littérature Française, par Demogeot.
Translation from English into French.

Subjects of Examination for Science Scholarships of the First Year.

Arithmetic.

Mensuration of Rectilineal Figures and of the Circle.

Algebra:

The Solution of Simple and Quadratic Equations, with one or more unknown quantities. Easy questions in the application of Algebra to Geometry. Arithmetical and Geometrical Progressions. The nature of Logarithms.

Euclid:

Books I., II., III., and IV., with deductions.

Trigonometry:

Definitions of the Sine, Tangent, &c., of an angle. The easier analytical formulæ. The Solution of Plane Triangles, with demonstrations. Nature and Use of the Tables.

Subjects of Examination for Science Scholarships of the Second and Third Years.

The Higher Arithmetic, with Mensuration.

Algebra:

The Solution of Equations, with one or more unknown quantities. Elimination. Theory and use of Logarithms. Theory of Equations. Binomial and Exponential Theorems. Compound Interest and Annuities.

Geometry:

Euclid, Books I., II., III., IV., VI.; Definitions of Book V., and first 21 Propositions of Book XI., with deductions. Analytical Geometry.

Trigonometry:

The Solution of Plane Triangles, with demonstrations of the formulæ. Theorems relating to single arcs. Theorems relating to the sums and differences of arcs. Application to heights and distances.

*For the Senior Scholarships in the Greek and Latin Languages, and Ancient History.**

The Greek Language:

Thukydides, Book III.	Demosthenes—De Corona.
Theokritus—The Idylls.	Composition in Attic Prose and
Theophrastus—The Characters.	Verse.
Sophokles—Antigone.	History, from B.C. 431 to B.C. 323.

* Where more than one subject enters into the examination for Senior Scholarships, a competent knowledge of all these subjects is required from the successful candidate.

Appendix A.
No. II.
Faculty of Arts.

The Latin Language:

Virgil.
Horace.
Lucretius, Books I., II.
Ovid—Fasti, Book I.
Persius.
Terence—Andria.
Plautus—Capteivei.
Cicero—De Oratore.
,, Tusculan Disputations.
,, Ad Atticum, Books I., II.
,, Actiones Verrinæ.
Livy—Books IV. and XXII.
Tacitus—The Annals, Books I. to IV. inclusive.

Composition in prose and verse.

For Senior Scholarships in Modern Languages, Literature, and History.

The French Language:
Lavallée—Histoire des Français.
Histoire de la Littérature Française, par Demogeot ou Nisard.

The German Language:
Nationalliteratur, von A. F. Vilmar.
Schiller's Maria Stuart.
Goethe's Iphigenie.

The Italian Language:
Tasso—La Gerusalemme Liberata—first five Cantos.
Dante's Inferno—Italian Literature, published by Messrs. Chambers.

Translation from English into French, German, or Italian.

English:

The English Language.
The History of the English Language.

English Literature.
The History of English Literature from 1789 to 1830, with a critical knowledge of—
1. Wordsworth—Excursion.
2. Coleridge—Collected Poems.
3. Scott—Marmion.
4. Byron—Childe Harold.
5. Shelley—Adonais.
6. Lamb—Essays of Elia.

History:
The History of Europe from 1789 to 1830.

For the Senior Scholarship in Mathematics.

The subjects of previous Examinations (for which see page 35), with the following additions:—

Analytical Geometry of Three Dimensions.
Differential Equations.

For the Senior Scholarship in Natural Philosophy.

Duhamel—Mécanique.
Brinkley—Elements of Astronomy, including the Appendix.
Parkinson's Optics.
Everett's Translation of Deschanel's Natural Philosophy.

For the Senior Scholarship in Mental and Social Sciences.

The subjects discussed in the Lectures of the Professors, with the following additions:—

Metaphysics and Logic:
Sir William Hamilton's Philosophical Essays and Notes on Reid.
Mill—System of Logic, Book III. to the end of Volume I.

Political Economy:
Principles of Political Economy, by John Stuart Mill.
Senior's Political Economy.
Goschen on Foreign Exchanges.
R. H. Mills—Lectures on Currency and Banking—second edition.

The value attached to the subjects will be in the following proportions, viz.:—

Metaphysics and Logic,	60
Political Economy,	40

For the Senior Scholarship in Chemistry.

Chemical Physics (in Miller's Chemistry).

Inorganic Chemistry:
General principles of Chemical Philosophy. Modern views of Chemistry. Crystallography.
Chemistry of the Metals. Constitution of Salts. Metallurgy.

Organic Chemistry:
Ultimate analysis of Organic Bodies. Recent views of the constitution of Organic Bodies. Empirical and Rational formulæ. Determination of the density of Vapours. Law of Substitution. Homologous Series. Chemical Types. Preparation and Properties of the Alcohol Series and their Derivatives. Cyanogen, its Compounds and Derivatives. Organic Bases of Artificial Origin.

Practical Chemistry:
The Analysis of Mixtures, containing two or more Acids and Bases.

For the Senior Scholarship in Natural History.

The Lectures of the Professors.
Sachs—Text-book of Botany, Books I. and II.
Hooker, J. D.—The Students' Flora of the British Islands (The Characters of the Orders and Tribes).
Huxley, T.—Lessons in Elementary Physiology.
Mivart, St. J.—Lessons in Elementary Anatomy.
Rolleston—Forms of Animal Life.
Lyell—Students' Elements of Geology.

See Appendix A., No. I., p. 24, for the University Exhibitions and Prizes in the Faculty of Arts.

No. III.—School of Engineering.

Degree in Engineering.

The course of instruction prescribed in the School of Engineering is intended, in the first place, to provide the preliminary scientific training required by the young Engineer; next to give systematic teaching of those branches of practical work, which can be taught in College, viz., Drawing, and the different kinds of Surveying, Levelling, and Mensuration, and lastly, in the third year, together with some illustrations of the practical application of the scientific principles already taught, to give some general outline of the design of the more ordinary work, with which the Engineer is concerned, so that when the Student goes from the College into the office he may be prepared to be of use in doing the work ordinarily expected from pupils of some standing, and also may be better able to profit by the opportunities there afforded to him of gaining a stock of practical knowledge, through his being able to give his undivided attention to them.

Although primarily intended for the education of the Civil Engineer, it will be seen that the Course of Lectures is well adapted to give such a general scientific education as is suitable for the young man intended for manufacturing or business life, more especially if in the third year the mere Engineering portion be replaced by one or more other Courses having a more immediate bearing on the work which the Student purposes to take in hand, as for instance Chemistry, Natural History, &c.; and again, by a similar substitution, the Courses of Lectures can be adapted to the want of those Students who propose to take up a group of chiefly scientific subjects for some of the Competitive Examinations, as for instance, by adding a Course of English Literature and History in the second, or in both the first and second years.

To obtain the Degree in Civil Engineering, Students must matriculate in Engineering, complete the prescribed course in one of the Queen's Colleges, and pass the University Examinations. Of these there are two; the Preliminary Examinations at the commencement of the third Session, and the Final Examination in the following September.

Appendix A.

No. III. School of Engineering.

Each Candidate for the Degree in Civil Engineering is required—

1. To have been admitted a Matriculated Student of the Queen's University in the Department of Civil Engineering.
2. To have studied in the Colleges of the Queen's University the Course herein prescribed.
3. To have passed the University Examinations herein prescribed.

The Course for the Degree in Civil Engineering

shall usually extend over Three Sessions, and shall comprise attendance on the following Curriculum:—

FIRST SESSION.

Mathematics (First Course).
Chemistry.
Modern Languages.
Geometrical Drawing.
Office Work.
Mineralogy, Geology, and Physical Geography.

SECOND SESSION.

Mathematics (Second Course).
Experimental Physics.
Civil Engineering.
Office Work.
Field Work.

THIRD SESSION.

Natural Philosophy, applied.
Mathematical Physics.
Civil and Mechanical Engineering.
Office Work.
Field Work.
Engineering Excursions.

Attendance on these Courses shall in all cases be understood to include passing such Examinations as may be appointed by the College Council, as well as the catechetical parts of the Courses of the Lecture.

Engineering Students shall reside at their respective Colleges during at least the first two Terms of each Session, and can be exempted from residence during the third Term also, only by a special grace of the College Council.

The study of the Engineering Curriculum may be extended over more than three Sessions, on the recommendation of the College Council, and under such regulations as the Council shall impose. Some relaxation of the order in which the subjects shall be studied will also be admitted, on the recommendation of the Council.

Candidates will, on the special recommendation of the College Council, be admitted to the Degree after two years' residence instead of three, if their previous acquaintance with a sufficient group of the subjects above set down for study in the First and Second Session is deemed by the Council satisfactory. In such cases the Certificate of the Council will be accepted in lieu of attendances upon these Courses, but will not exempt Candidates from the University Examinations in them.

In order to obtain this Certificate, Students must have attended previously at least one Session in Arts, or one year in an Engineer's office. On making application to the Council, such Students will be allowed to present themselves, at the time of Matriculation, for examination in the subjects of any four of the eight Courses of Lectures of the first two years. On passing this Examination, they will be allowed to take rank at once as Students of the second year, and will then be required to attend those other four Courses of Lectures only, in the subjects of which they have not passed; but they will not be eligible for the Scholarship of that year.

Students in Arts, who have already passed Sessional Examinations in three of the Courses of the first two years, will not be required to pass this Examination, but may make application to the Council to be admitted at once as second year Students, as above. They will also be allowed, by permission of the Council, to postpone their attendance on one of the five Courses of Lectures to the third year, provided it be not one of the subjects required for the First University Examination; they will then not be eligible for Scholarship of the third year, if the Course so postponed be included in the Scholarship Course of the third year.

The application to be admitted to this Examination must be lodged with the Registrar before the first day of the Session, and must state what are the four subjects in which the Students propose to offer themselves for Examination, and must be accompanied by a Certificate of the required attendance of one or more years in Arts or an Engineer's Office.

On passing the Sessional Examinations in the subjects of these four Courses of Lectures which they shall have attended as Students of the second year, they will be promoted to the rank of Students of the third year; and, on completing the regular Course of that year, will be furnished with the Certificate required by the Senate of the University.

The University Examinations shall extend to all the subjects of the above Curriculum. French will, in all cases, be required.

Candidates must present themselves before the close of their Collegiate Course for Examination in the following subjects, viz.:—Mathematics (*First Course*); Experimental Physics; Modern Languages; Geometrical Drawing (including Orthographic Projection, Isometric Projection, Descriptive Geometry, and Linear Perspective); Mathematics (*Second Course*); Mensuration, Levelling, and Mapping.

The final Examination shall extend to all the subjects of the Engineering Course, in which the Candidate shall not have previously passed. English Composition will form a part of each University Examination.

This Ordinance shall take effect from the first day of January, 1860; Students who shall have entered the Engineering Schools of the Colleges of Queen's University previously, may proceed either under the present Ordinance, or under that hitherto in force.

Lectures.

The Lectures in Engineering commenced on Monday, 23rd October, 1876.

The following Table shows the various Classes which are to be attended in each year, with the corresponding days and hours of Lecture, and the College and Class Fee payable by Engineering Students:—

	CLASS.	Terms.	Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.	Fees. £	s.	d.
1st Session.	Mathematics (1st Course),	1, 2, 3	12	–	12	–	12	–	2	0	0
	Chemistry,	1, 2, 3	11	–	11	–	11	–	2	0	0
	Modern Languages,	1, 2, 3	2	–	2	–	2	–	2	0	0
	Geometrical Drawing,	1, 2, 3	10	–	10	–	10	–	2	0	0
	Office Work (10 A.M. to 2 P.M.)	1, 2, 3	–	10	–	10	–	10	2	0	0
	Mineralogy, Geology, and Physical Geography,	1, 2, 3	–	2	–	2	–	12	2	0	0
	College Fee,	–	–	–	–	–	–	–	0	10	0
2nd Session.	Mathematics (2nd Course),	1, 2, 3	2	–	2	–	2	–	2	0	0
	Experimental Physics,	1, 2, 3	–	–	–	–	–	–	2	0	0
	Civil Engineering,	1, 2, 3	–	10	–	10	–	10	2	0	0
	*Office Work (10 A.M. to 2 P.M.)	1, 2, 3	–	10	–	10	–	10	2	0	0
	College Fee,	–	–	–	–	–	–	–	0	5	0
3rd Session.	Natural Philosophy, applied,	1, 2, 3	–	2	–	2	–	–	2	0	0
	Mathematical Physics,	1, 2, 3	1	–	1	1	1	–	2	0	0
	Civil and Mechanical Engineering,	1, 2, 3	12	–	12	–	12	–	2	0	0
	*Office Work (10 A.M. to 2 P.M.)	1, 2, 3	–	10	–	10	–	10	2	0	0
	College Fee,	–	–	–	–	–	–	–	0	5	0

* For Students who have attended this Course in their first year, the Fee is £1.

Outline of the Course of Lectures on Civil Engineering.

Professor, Alexander Jack, M.A.

FIRST YEAR.

Monday, Wednesday, and Friday.

Subject of Lectures—Orthographic Projection; Descriptive Geometry; Shadows; Isometric Projection; Perspective; Geometry of the Oblique Bridge; Principles of Architecture.

Appendix A.

No. III. School of Engineering.

Text-books—Hall's Descriptive Geometry; Engineer and Machinist's Drawing Book; Rickman's Architecture; Buck on Oblique Bridges.

SECOND YEAR.

Tuesday, Thursday, and Saturday.

Subject of Lectures—Surveying and Levelling.

Text-books—Rankine's Civil Engineering; Cotton's Manual of Railway Engineering; Williams' Geodesy.

THIRD YEAR.

Monday, Wednesday, and Friday.

Materials used in Construction; Principles of Construction of Bridges, Roads, Railways, Canals; Hydraulic Engineering; Strength of Materials; Principles of the Construction of the different Machines employed by the Engineer.

DRAWING OFFICE.

Attended by all the Classes—Tuesday, Thursday, and Saturday.

The First Year's Class are chiefly employed in drawing the problems given at lectures, and a few easy examples of their applications. The Second and Third Years' Classes, in making working drawings of examples of the subjects of lectures, and in Mapping.

Practical Instruction in the Field in the use of Surveying Instruments is given during the Session.

For an outline of the other courses of lectures in the above table to be attended by Engineering Students, see Appendix No. II., p. 29, *et seq.*

Scholarships.

In the School of Engineering there are five Scholarships, two of which are appropriated to Students of the first year, two to those of the second, and one to those of the third. (See also p. 23.)

Subjects of Examination.

The Subjects of Examination for the Engineering Scholarships are as follows:—

Subjects of Examination for Engineering Scholarships of the First Year.

Arithmetic:

Mensuration of Rectilineal Figures and of the Circle:

Algebra:

The Solution of Simple and Quadratic Equations, with one or more unknown quantities. Easy questions in the application of Algebra to Geometry. Arithmetical and Geometrical Progressions. The Nature of Logarithms.

Euclid:

Books I., II., III., and IV., with Deductions.

Trigonometry:

Definition of the Sine, Tangent, &c., of an Angle. The easier analytical formulæ. The Solution of Plane Triangles with Demonstrations. Nature and use of the Tables.

Subjects of Examination for Engineering Scholarships of the Second Year.

Mathematics:

The same as for Science Scholarships in Arts of the Second Year, except that Spherical Trigonometry will be substituted for Analytical Geometry.

French:

Demogeot—Histoire de la Littérature Française.
Translation from English into French.

Chemistry:

Laws of Combination and Affinity. Preparation and Properties of the chief Organic Substances. Metallurgic Operations. Mortars and Cements.

Geometrical Drawing:

Descriptive Geometry. Orthographic Projection. Isometric Projection. Perspective Geometry of Oblique Bridge.

Subjects of Examination for Engineering Scholarships of the Third Year. *Appendix A.*

No. III. School of Engineering.

Mathematics:

Algebra—Theory of Equations and Methods of Approximation. Elimination. Summation of Series. Binomial and Exponential Theorems. Scales of Notation, &c.

Trigonometry—Plane and Spherical, with Astronomical applications.

Analytical Geometry, and Geometrical Conic Sections.

Differential Calculus—Involving demonstrations of the rules for differentiating Algebraic, Circular, and Exponential Functions, founded upon a clear statement of the nature of Limits and Definition of a Differential coefficient. Taylor's and Maclaurin's Theorems. Maxima and Minima. Criteria of the same, with proofs, Equation of Tangent, Normal, Evolute, &c.

Integral Calculus, including more particularly Rational Fractions, Binomial Differentials, Areas of Curves, Rectification of Curves, Cubature of Solids of Revolution.

Natural Philosophy:

Newth's Mechanics.

Ganôt—Traité de Physique—Books VI., VII., VIII., IX.

Geology and Mineralogy:

Civil Engineering:

Instruments used by the Civil Engineer. Their adjustments and use. Surveying. Levelling.

See Appendix No. I. p. 25, for the University Exhibitions in Engineering.

No. IV.—Faculty of Law.

No. IV. Faculty of Law.

Degrees.

Candidates for the Diploma of Elementary Law must have passed a Matriculation Examination, and pursued the following

Course of Study for the Diploma of Elementary Law.

FIRST SESSION.

Law of Real Property, Principles of Conveyancing; Jurisprudence.

The Course of the Professor of English Law for the First Year's Class comprises Elementary Instruction in the Law of Real Property, and in practical Conveyancing. The text-book read is "Williams on Real Property."

The following works are recommended for perusal:—

Blackstone's Commentaries, by Stephen, Vol. I., and Vol. II. of Kerr's edition of the same work.

SECOND SESSION.

Law of Personal Property, Equity, and Bankruptcy; Civil Law.

The Course of the Professor of English Law for the Second Year's Class comprises instruction in the Law of Personal Property, Equity, Bankruptcy, and the practice relating to those branches of Law. The text-books read are, "Smith on Contracts," "Williams on Personal Property," and "Snell's Principles of Equity."

The following are recommended for perusal:—

Blackstone's Commentaries, by Stephen, Vol. II.; same, by Kerr, Vol. II.; Smith's "Mercantile Law," Smith's "Manual of Equity," Story's "Equity Jurisprudence," Vol. I.; Kisbey on the Bankruptcy Acts, 1857 and 1872; the Debtors Act, 1872.

THIRD SESSION.

Common and Criminal Law.

The Course of the Professor of English Law for the Third Year's Class comprises the History, Constitution, and Jurisdiction of the several Courts of Justice, and their Procedure. The text-books are the third and fourth volumes of Blackstone's Commentaries, editions by Stephen and Kerr.

Appendix A.

No. IV. Faculty of Law.

The following works are recommended for perusal :—

Broom's "Common Law," Broom's "Legal Maxims," Smith's "Leading Cases," "Copinger's County Courts," by Johnstone, Common Law Procedure Acts, 1853 and 1856, &c., by Bewley and Nash; Woolrych's Criminal Law, or Russell on Crimes.

Candidates for the Degree of LL.B. will be admitted to Examination for that Degree from the Queen's University in Ireland, provided they shall have proceeded to the Degree of A.B., and shall have attended the Lectures and passed the Examinations prescribed for the Diploma of Elementary Law.

Students who have obtained the Degree of LL.B. will, at the expiration of two years after they have obtained the Degree, be admitted to the Examination for the Degree of LL.D. They are examined in the Laws of the Admiralty and in International Law, for which Examination the following Books are suggested :—

Lord Hale's Treatise, De Jure Maris.
Dr. FitzHenry Townsend's statement of the differences in Jurisdiction and Practice between the English and Irish Courts of Admiralty, annexed to the Report of the Royal Commission of Inquiry, 1864.
Boyd's Admiralty Practice.
Lord Tenterden on Merchant Ships (by Shee).
Wheaton's International Law.
"Historicus," Letters of, on International Law.
May's Constitutional History.

— LECTURES.—

The complete Course for each Class consists of Twenty-four Lectures, by the Professor of English Law, in each Collegiate Session of three years, and of Twenty-four Lectures by the Professor of Jurisprudence, in each course of the first two years. The Lectures are delivered after Michaelmas Law Term, in the month of December, and after Hilary Law Term, in the months of February and March. Five-sixths of the Lectures in each Course must be attended.

Students proceeding to the Irish Bar, if they be Graduates in Arts of the Queen's University, and have attended for one year the Lectures, and passed the Examinations of the Professors of Law in any of the Queen's Colleges, will under the rules made by the Benchers of the King's Inns in Trinity Term, 1876, be required to attend but for one year at the Lectures, and on two only of the Professors of the King's Inns.

Students proceeding to the Irish Bar, who are not Graduates in Arts of the Queen's University, but have for one year attended the Lectures of the Professors of Law in any of the Queen's Colleges, will be required to attend for two years at the Lectures of the Professors of the King's Inns.

Graduates, or Undergraduates, are excepted from the operation of the Benchers' rule requiring Law Students to pass an examination in the English Language and Literature, and the Latin Language.

With respect to Students for the English Bar, the Council of Legal Education may accept a Degree in Law granted by the Queen's University, as an equivalent for the Examination to be passed in any of the following subjects, viz. :—Roman Civil Law; the Law of Real and Personal Property; provided the Council is satisfied that the Student, before he obtained his Degree, passed a sufficient Examination in such subject or subjects.

Students preparing for the profession of Attorney or Solicitor in Ireland, can save two years of their apprenticeship by taking the Degree of B.A. or of LL.B., in the Queen's University.

Students intending to proceed, so as to entitle themselves to serve an apprenticeship of four years instead of five, under the Attorneys and Solicitors Act, Ireland, 1866, must enter their names with one of the Registrars of the Queen's Colleges of Cork, Belfast, or Galway, and pay the necessary College and Class Fees to the Bursar before the commencement of the Law Lectures in each Session. Such Students need not pass the Matriculation Examination, but must attend the Lectures, and pass the College Examinations prescribed for the first and second years, of the course of study for Candidates for the Diploma in Elementary Law.

Scholarships.

Subjects of Examination.

FIRST YEAR.

Examination by the Professor of Jurisprudence:—

Reddie's Inquiries in the Science of Law.
Adam Smith's Wealth of Nations—Book III.
Hallam's Middle Ages—Chapters 2 and 8.

Examination by the Professor of English Law:—

Williams—Principles of the Law of Real Property.

SECOND YEAR.

By Professor of Jurisprudence.

The Lectures of the Professor in the First Year.
Ancient Law, by H. S. Maine.
The Chapters on Social Science in J. S. Mill's Logic—Book VI., Chap. 6, to end of the Book.
Austin's Jurisprudence, Vol. 1, 3rd Edition.

By Professor of English Law.

The Lectures of the Professor for the preceding year.
Smith—Manual of Equity Jurisprudence.
Williams—Principles of the Law of Personal Property.
Smith—On Contracts.

THIRD YEAR.

By Professor of Jurisprudence.

Austin's Jurisprudence, Vol. 2, 3rd Edition.
Sandar's Justinian, and the Lectures of the Professor in the first and second years.

Note.—The following works, in addition to the text-books mentioned, should be referred to in connexion with the principal subjects discussed in the Lectures on Jurisprudence:—

Dumont's Bentham (translation by Hildreth), "Principles of Legislation," and 1st and 2nd parts of the "Principles of the Civil Code."
Stephens' "Criminal Law."
Spence's Equity Jurisprudence, Vol. I., Part 1.
Mackenzie's Roman Law.

By Professor of English Law.

The Lectures of the Professor for the preceding years.
Smith—Leading cases on branches of the Law.
Story—Equity Jurisprudence.

The Senior Law Scholarship will be awarded, by Examination, to the most distinguished Student who shall have proceeded in the Course of Arts to the Degree of A.B., and who shall have completed the Course of Legal Study prescribed to Candidates for the Degree of LL.B. in the Queen's University in Ireland.

Examination for the Senior Scholarship in Law.

The Lectures of the Professors and subjects appointed for Scholarship Examination in the preceding years.
Sugden—The Law of Vendors and Purchasers.
Furlong—Law of Landlord and Tenant.
Taylor—Treatise on the Law of Evidence.
Stephen—Treatise on the Principles of Pleading.
Stephen—Commentaries, Books V., VI.
Hallam—Constitutional History.
Broom's Constitutional Law.
Spence's Equity Jurisprudence, Vol. I., Part 1.

No. V.—Faculty of Medicine.

Degrees of M.D. and M.Ch.

Students who wish to obtain the Degree of M.D., or of M.Ch. in the Queen's University, must be matriculated Students of one of the Queen's Colleges, and must pursue the courses of study prescribed by the Senate of the University.

Appendix A.

No. V. Faculty of Medicine.

Medical Students may matriculate either at the General Matriculation Examination (held in 1874, on the 20*th of October*), or at the Supplementary Examination held in the second or third week of *November*.

The following are the Regulations of the Senate concerning those Degrees:—

Each Candidate for the Degree of Doctor in Medicine or Master in Surgery is required—

1st—To have passed in one of the Colleges of the Queen's University the Entrance Examination in Arts, and to have been admitted a Matriculated Student of the University.

2nd—To have attended in one of the Queen's Colleges, Lectures on one Modern Continental Language for six months, and Lectures on Natural Philosophy for six months.

3rd—To have also attended, in some one of the Queen's Colleges, at least two of the courses of Lectures marked with an asterisk. For the remainder of the courses, authenticated certificates will be received from the Professors or Lecturers in Universities, Colleges, or Schools, recognised by the Senate of the Queen's University in Ireland.

4th—To pass three University Examinations—the First University Examination, the Second University Examination, and the Degree Examination.

The Curriculum shall extend over at least four years, and shall be divided into periods of at least two years each.

Candidates are recommended to pass the Matriculation Examination prior to entering on the second period.

It is recommended that the first period shall comprise attendance on the following Courses of Medical Lectures:—

* Chemistry.
* Botany, with Herborizations for practical study, and Zoology.
* Anatomy and Physiology.
* Practical Anatomy.
* Materia Medica and Pharmacy.

And that the second period shall comprise attendance on the following Courses of Medical Lectures:—

Anatomy and Physiology (Second Course).
Practical Anatomy (Second Course).
* Theory and Practice of Surgery.
* Midwifery.
* Theory and Practice of Medicine.
* Medical Jurisprudence.

In addition to the above Courses of Lectures, Candidates shall have attended during either the first or second period—

A Modern Continental Language (in one of the Colleges of the University).
Experimental Physics (in one of the Colleges of the University).

Also, during the first period—

Practical Chemistry (in a recognised Laboratory).
Medico-Chirurgical Hospital (recognised by the Senate) containing at least sixty beds, together with the Clinical Lectures therein delivered, at least Two each Week—a Winter Session of Six Months.

And during the second period—

Practical Midwifery, at a recognised Midwifery Hospital, with the Clinical Lectures therein delivered—for a period of Three Months, in an Hospital containing not less than Thirty beds; or Six Months, in an Hospital containing not less than Fifteen beds.

Medico-Chirurgical Hospital (recognised by the Senate) containing at least sixty beds, together with the Clinical Lectures therein delivered—Eighteen Months; including either three Winter Sessions of Six Months each, or two Winter Sessions of Six Months each, and two Summer Sessions of Three Months each.

* The regulations under which degrees in Surgery will be conferred on Candidates who graduated in Medicine before the year 1865, may be learned on application to the Secretary of the Queen's University.

Medical Examinations are held in June, and in September and October.

The June Examinations are Pass Examinations, and commence on the Tuesday following the Second Saturday in June.

The Honor Examinations commence on the last Tuesday in September, and are followed by Pass Examinations.

Each Candidate for Examination in June must forward to the Secretary, on or before the first of June, notice of his intention to offer himself as a Candidate along with his Certificates; and each Candidate for Examination in September or October must forward similar notice, along with his certificates.

Lectures.

The Lectures in this Faculty began on Thursday, the 2nd November, 1876.

The following Curriculum is recommended for all Medical Students; the days and hours of Lecture and the Fees are shown in the table:—

	CLASS.	Mon.	Tues.	Wed.	Thur.	Fri.	Sat.	Fees. £ s. d.	£ s. d.
1st Year.	Practical Anatomy,	12	12	12	12	12	–	3 0 0	
	French,	1	–	1	–	1	–	2 0 0	
	Natural Philosophy,	–	11	–	11	–	–	2 0 0	
	Natural History,	3	–	3	–	3	–	2 0 0	
	Chemistry,	11	–	11	–	11	–	2 0 0	
	College Fee,	–	–	–	–	–	–	0 10 0	
									11 10 0
2nd Year.	Anatomy & Physiology,	1	1	1	1	1	–	3 0 0	
	Practical Anatomy,	12	12	12	12	12	–	3 0 0	
	Practical Chemistry,	2	–	2	–	2	–	3 0 0	
	Materia Medica,	–	3	–	3	–	12	2 0 0	
	College Fee,	–	–	–	–	–	–	0 5 0	
									11 5 0
3rd Year.	Practical Anatomy,	12	12	12	12	12	–	3 0 0	
	Anatomy & Physiology,	1	1	1	1	1	–	2 0 0	(If a 2nd Course.
	Midwifery,	4	–	4	–	4	–	2 0 0	
	Surgery,	–	4	–	4	–	1	2 0 0	
	College Fee,	–	–	–	–	–	–	0 5 0	
									9 5 0
4th Year.	Medical Jurisprudence,	3	–	3	–	–	3	2 0 0	
	Medicine,	1	–	1	–	–	12	2 0 0	
	College Fee,	–	–	–	–	–	–	0 5 0	
									4 5 0

The Course of Practical Anatomy was conducted by the Professor of Anatomy and Physiology, assisted by Demonstrators.

The Anatomical Demonstrations

commenced on 2nd of November, and were continued daily at Twelve o'clock, except Saturdays.

Note.—All the Lectures are recognised by the Queen's University in Ireland, by the Universities of London, Glasgow, Aberdeen, and St. Andrew's; the Colleges of Surgeons of Dublin, Edinburgh, and London; by the Apothecaries' Companies; by the Army, Navy, and East India Medical Boards, &c., &c.

Hospital Attendance.

Clinical Lectures on Medicine and Surgery are delivered at the North and South Infirmaries, by the Physicians and Surgeons of those Institutions.

	£	s.	d.
Fee for twelve months,	8	8	0
Fee for six months,	5	5	0
Practical Pharmacy at the same Infirmaries:			
Fee for three months,	3	3	0
Clinical Midwifery at the Lying-in Hospital, with Practical Attendance upon Thirty Midwifery cases:			
Fee for six months,	3	3	0

Further information may be had from the Medical Officers at the Infirmaries.

Appendix A.

No. V. Faculty of Medicine.

Outlines of the Courses of Lectures delivered by the Professors in the Faculty of Medicine.

Anatomy and Physiology.

Professor, J. J. Charles, M.A., M.D.

Anatomy and Physiology:

This Class meets on Mondays, Tuesdays, Wednesdays, Thursdays, and Fridays, at One o'clock, P.M., and occasionally on Saturdays, at Ten o'clock, A.M.

The Course comprises:

(1.) Histology—an account of the tissues of the body. (2.) The Anatomy and Physiology of the Organs of Digestion, Respiration, Circulation, Excretion, and Reproduction. (3.) The Anatomy and Physiology of the Lymphoid Organs, the Brain, Spinal Cord, Organs of Special Sense and Voice. (4.) Embryology, including a description of the development of the principal organs. The lectures are amply illustrated by diagrams, plates, models, moist and dry specimens from the Anatomical Museum, Microscopic preparations, recent dissections and experiments. As the subjects embraced in this course cover a very extensive field, a few of them are treated of only in alternate Sessions.

The Senior Division of the class, in addition to attendance on the ordinary lectures, meets specially every Thursday, after the Christmas recess, for the consideration of the higher portions of the course. *Oral Examinations* are frequently held, usually on Wednesday or Saturday. There are also *Written Examinations* immediately after Christmas, as well as at the close of the Session.

Text-books—Quain's Anatomy and Kirke's Physiology. Senior Students are recommended to read in addition:—Carpenter's Human Physiology; Hermann's Physiology; Frey's Histology; Stricker's Histology.

Histology and Practical Physiology:

Instruction in this department will be given next Session in the *Physiological Laboratory*, which has been lately provided with microscopes, and the apparatus necessary for performing experiments on Circulation, Respiration, Inervation, &c.

Text-books—Foster's Practical Physiology; Schäfer's or Rutherford's Histology. And for Senior Students—Handbook for Physiological Laboratory, by Dr. Burdon Sanderson, Klein, &c.

Practical Anatomy:

The *Anatomical Demonstrations* are given on five days in the week by the Senior Demonstrator, and occasionally by the Professor of Anatomy.

The Course includes:

(1.) The Descriptive Anatomy of the Bones and Ligaments. (2.) The Topographical Anatomy of the Limbs, Head, and Neck, and of the Thoracic and Abdominal cavities, with the exception of the Viscera.

Three *Prosectors* are appointed annually from amongst the more deserving students.

Senior Division of the Class.

The Professor of Anatomy has a special meeting of the senior division of the class every Tuesday, when the more abstruse subjects of the course are discussed.

Junior Division of the Class.

The Junior Demonstrator meets the junior students every Wednesday after Christmas at Ten o'clock, A.M., for special instruction in Osteology.

The Dissecting Room is open from Nine o'clock, A.M., till Four o'clock, P.M., daily, and the dissections of the students are superintended by the Professor. Demonstrators, and Prosectors of Anatomy.

The Lectures and Demonstrations are illustrated by recent dissections, diagrams, plates, and osteological specimens.

Text-books—Ellis's Demonstrations and Quain's Anatomy. For consultation:—Holden or Wagstaffe's Osteology; Gray's Anatomy; Holden's Medical and Surgical Landmarks; Cruveilhier's Anatomy.

Theory and Practice of Medicine.

Professor, D. C. O'Connor, B.A., M.D.

This class meets on Mondays and Wednesdays, at one o'clock, P.M., and on Saturdays at twelve, noon.

The subjects of the Course are treated of in the following order:

Fevers—Intermittent, Remittent, Typhus, Typhoid, Relapsing. *Exanthematous Diseases*—Scarlatina, Rubeola, Variola, Varioloid, Varicella, Vaccination, Diphtheria, Cholera, Purpura, Scorbutus, Erysipelas, Rheumatism. *Cerebral Diseases*—General considerations, causes—remote and proximate, Meningitis, acute and chronic Hydrocephalus, Cerebritis, "Ramollisment," Apoplexy. *Spinal Diseases* in the same order. Paralysis—general and partial. *Diseases of Sensibility*—Hyperæsthesia and Anæsthesia. *Diseases of Motility*—Hysteria, Chorea. *Diseases of the Respiratory Organs*—Laryngitis, Croup, Bronchitis, Pneumonia, Pleuritis, General Observations on Tubercle and Scrofula, Tubercular and other forms of Phthisis. *Diseases of the Heart, &c.*—Pericarditis, Endocarditis, Valvular Disease, Hypertrophy, Dilatation, Fatty Degeneration, Phlebitis, Blood Poisoning in general, Aneurism. *Diseases of the Alimentary Canal*—Dyspepsia, Gastritis, acute and chronic, Ulceration of the Stomach, Cancer, with general observations on Cancer, Sporadic Cholera, Flux, Dysentery, Diarrhœa, Tabes Mesenterica, Vermes. *Diseases of the Liver*—Icterus, Hepatitis, acute and chronic; Cirrhosis, Fatty and Waxy Liver. *Diseases of the Kidneys, &c.*—Diabetes, acute and chronic; Nephritis, Bright's Disease.

Theory and Practice of Surgery.

Professor, W. K. Tanner, M.D., F. & L.R.C.S.I.

This Course comprises:

The Principles and Practice of Surgery, also a special course of Operative Surgery, which will be demonstrated on the Subject.

During the Session will be discussed:—

I.—Elementary Diseases, under which are classed, constitutional affections, such as Fevers, Cachectic Diseases, and those of the nervous system; Inflammatory Action and Congestion. The healing process, Suppurations, Ulcers, Mortification, Hypertrophy, Atrophy, and Absorption, Tumours and Hæmorrhage.

II.—Morbid Action in certain Tissues, under which are classed—Affections of the Integument of Serous and Mucous Membranes, of Periosteum and Bone, of Joints, Arteries, Veins, Lymphatics, and Nerves.

III.—Injuries, under which heading are comprised—Wounds, Effects of Heat and Cold, Fractures, Dislocations, Sprains, and Ruptures of Muscles and Tendons, Bruises, and Suspended Animation.

The treatment of the above will be fully described, and the lectures illustrated by plates, diagrams, pathological and microscopical specimens, together with the instruments and surgical appliances employed.

Text-books recommended—Holmes' Principles and Practice of Surgery—Bryant's Practice of Surgery—Science and Art of Surgery (Erichsen).

Midwifery.

Professor, Joshua R. Harvey, B.A., M.D.

This class meets on Mondays, Wednesdays, and Fridays, at four o'clock, P.M.

The Course includes:

I.—Introductory Sketch of the function of reproduction in animals.

II.—The anatomy, physiology, and morphology of the generative organs.

III.—Impregnation, and its results; development and growth of the Embryo.

IV.—Pregnancy, its phenomena, signs, variations, and diseases; sterility, impotence.

V.—The Pelvis, its relations, deviations, and deformities.

VI.—Labour, its causes, classification, &c.; the physiology, mechanism, phenomena, and management of Labour, natural, unnatural, and complex, including abortion, *Post-partum* condition, natural and morbid. Management of Infants.

Appendix A

No. V.
Faculty of Medicine.

Materia Medica.

Professor, MATTHIAS O'KEEFFE, M.A., M.D.

This class meets on Tuesdays and Thursdays at three o'clock, P.M., and on Saturdays at twelve o'clock. An Examination is also held on Saturday.

The Course, which extends over six months, and about sixty-four lectures, includes:

An introductory address, classification of medicines, based on the physiological action, verified or corrected by the result of clinical experience; a description of the physical and chemical characters of the drugs enumerated in the British Pharmacopœia, and of other non-officinal drugs of recognised therapeutic value; an examination of the purity of the specimens supplied to the College Museum, by the application of the tests recommended by the British Pharmacopœia, and of other tests; exhibition to the class of specimens of the various drugs and medicinal preparations, dried and fresh medicinal plants, and coloured plates; physiological action of the more important remedies, with occasional experiments on animals to illustrate this action. Therapeutic uses of drugs, special attention being given to doses and modes of administration, the latter being illustrated by the writing of prescriptions on the black board; the medical and surgical uses of the various forms of electricity, illustrated by a full set of apparatus; practical exercise of the class on the medical plants growing in the Botanic Garden. The course terminates with an Honor Examination, at which prizes are awarded.

TEXT-BOOK:—The only text-book adopted is the British Pharmacopœia. In the therapeutic department of the Library there is a choice selection of works to which students are referred.

Medical Jurisprudence.

MEDICAL PART.

Lecturer, MATTHIAS O'KEEFFE, M.A., M.D., Professor of Materia Medica.

The lectures on this subject are given on Mondays, Wednesdays, and Saturdays, at three o'clock, P.M.

The Course opens with an introductory lecture, and the subjects are treated under the following heads:

Signs of Death—Examination of the dead body, *rigor mortis*, the various conditions which modify it, its medico-legal application, putrefaction, forms and progress of putrescence; various kinds of violent death—hanging, drowning, injuries, &c.; their signs; are they accidental, homicidal, or suicidal? Examination of bloodstains (in which the class is practically exercised), of hair, &c. *Disputed Sexual Relations*—legitimacy, pregnancy, infanticide, abortion, &c. *Disputed results of bodily injuries. Disputed Mental Aberration, Toxicology*, including classification of poisons: the more important poisons are given to animals (chloroform being used where the least pain is inflicted, as with the irritants and corrosives), and the *post-mortem* appearances produced exhibited; tests for the various poisons shown, and the poison extracted from the viscera, or other organic matter by the lecturer, assisted by as many of the class as wish to work practically at the subject, in the special Laboratory for Materia Medica and Medical Jurisprudence. The course concludes with an Honor Examination, at which prizes are awarded.

LEGAL PART.

Lecturer, MARK S. O'SHAUGHNESSY, Professor of English Law.

The part of the Course, delivered by the Professor of English Law, consists of twelve Lectures, in which are treated:—

I.—Subjects relating to Forensic Medicine considered as—1. Questions affecting the civil right or social duties of individuals. 2. Injuries to property. 3. Injuries to person; and the state of the law in respect to subjects coming under these heads, including the practice in lunatic matters, life assurance, criminal responsibility, &c., is explained.

II.—In relation to Medical Police, the subjects treated of are considered as regards—1. Questions affecting the preservation of individuals. 2. Which relates to these collected into communities. Under this head the statutes relating to Public Health in Ireland are explained.

The law relating to the subjects treated of is illustrated by references to cases in which matter appropriate to the subject under consideration can be pointed out and their applicability explained, and points requiring the particular attention of medical men are suggested.

Scholarships.

There are Eight Scholarships in the Faculty of Medicine, which are thus allotted:—

To the First Year—Two—One for Literature and one for Science.
" Second do. Two.
" Third do. Two.
" Fourth do. Two.

Subjects of Examination.

Scholarships of First Year.

1. literary scholarship.

The Greek Language:
Homer—Iliad, Books I., II., III., IV., V., and VI., inclusive.
Euripides—Hecuba.
Xenophon—The Anabasis, Books I., II., III.
Greek Prose—Translation of short sentences from English into Greek.

The Latin Language:
Virgil—First Six Books of the Æneid, the Georgics.
Horace—First Two Books of the Odes, the Satires, and the Epistles, Books I., II.
Cicero—De Senectute; De Amicitiâ.
Sallust—Conspiracy of Catiline and Jugurthine War.
Cæsar—The Gallic War, Books V., VI.
Latin Prose—Re-translations from English into Latin of portions of Cicero.
N.B.—The Examination in Greek and Latin will be conducted partly *vivâ voce*, and partly by printed questions.

The English Language:
Original Essays on subjects proposed by the Examiner.
The Principles of English Grammar. (Bain recommended.)

History and Geography:
Grecian History, to the Death of Alexander the Great. (Smith recommended.)
Roman History, to the Accession of Augustus. (Liddell recommended.)
Outlines of Ancient and Modern Geography.

2. science scholarship.

Arithmetic:
Mensuration of Rectilineal Figures and of the Circle:
Algebra:
The Solution of Simple and Quadratic Equations, with one or more unknown quantities. Arithmetical and Geometrical Progressions. The Nature of Logarithms. Easy questions in the application of Algebra to Geometry.

Geometry:
Euclid—Books I., II., III., and IV., with Deductions.

Trigonometry:
Definitions of the Sine, Tangent, &c., of an Angle. The easier analytical formulæ. The Solution of Plane Triangles, with Demonstrations. Nature and use of Logarithms.

Scholarships of the Second Year.

The French Language.
General Physics.
Chemistry.
Zoology and Botany.
Anatomy and Physiology.

Scholarships of the Third Year.

Practical Chemistry.
Anatomy and Physiology (the whole of the lectures of the previous Session, except those on the Brain and Spinal Cord).
Practical Anatomy.
Materia Medica.

Appendix A.

No. V. Faculty of Medicine.

Scholarships of the Fourth Year.

I. One in Anatomy and Physiology; Practical Anatomy; and Surgery.
II. One in Practice of Medicine; Midwifery; and Medical Jurisprudence.

N.B.—At all examinations (both class and scholarship) on Anatomy and Physiology, Microscopic Specimens and Preparations from the Anatomical Museum will be exhibited.

See Appendix No. I., p. 25, for the University Exhibition and Prizes in the Faculty of Medicine.

Appendix B.

List of Successful Candidates for Degrees, &c.

APPENDIX B.

No. VI.—University Degrees, Diplomas, and Honors obtained by Students of Queen's College, Cork, at the Commencements in June and October, 1876.

Faculty of Arts.

Degree of M.A.

Thomas M. Corker, B.A., . . . First Class in Biological Science.
Annesley Ashworth Somerville, B.A., First Class in Mathematical Science.

Degree of B.A.

Samuel Lombard Brown, . . . First Class in Metaphysics, History, and Political Economy.
Michael Keating, ... First Class in Logic, Metaphysics, and Political Economy.
Hamilton Benson, ... Second Class in Biological Science.
Edwin Sandys Donovan, . . . Upper Pass Division.
Thomas Dorman, ... Upper Pass Division.
William Kelly (and Galway), . . Upper Pass Division.
John Philip Sullivan, ... Upper Pass Division.

Passed.

Robert Ambrose.
William Barry.
Thomas Farrington.
Samuel Townsend.

First University Examination in Arts.

Passed.

Clarke H. Irwin.
John Ed. Laffan.
James John Riordan.
Samuel Townsend (Supplem. Jan. 1876).

Faculty of Law.

Degree of LL.B.

William C. Taylor, M.A., . . . Second Class.
Denis F. Hannigan, B.A., . . . Upper Pass Division.

Faculty of Medicine.

Degree of M.D.

John Jagoe Welply, ... First Honor Class.
Jeremiah Mullane, ... Second Honor Class.
George Lewis Latour, . . . Upper Pass Division.

Passed.

Charles Henry Bennett.
Richard John Burke.
William Coates (and Galway).
Michael Collins.
Jephson J. Connell.
Arthur Derham.
John S. Dillon.
Justin F. Donovan.
Michael Dundon.
Robert Eccles, M.A. (and Belfast).
Charles Good.
John Baldwin Isaac.
George Laffan.
Michael J. M'Carthy.
John Mulrenan.
Francis H. S. Murphy.
Maurice Joseph O'Sullivan.
Thomas Francis Riordan.
Charles K. Deane Tanner, B.A.
William Cotter Williamson.

Degree of Master in Surgery (M.Ch.)

Richard John Burke.
Ch. Henry Bennett.
William Coates (and Galway).
Jephson J. Connell.
John S. Dillon.
Justin F. Donovan.
Michael Dundon.
Robert Eccles, M.A. (and Belfast).
Charles Good.
George Laffan.
George Lewis Latour.
Michael J. M'Carthy.
Francis H. S. Murphy.
Maurice Joseph O'Sullivan.
Thomas F. Riordan.
Charles K. Deane Tanner, B.A.
John Jagoe Welply.
William Cotter Williamson.

Diploma in Midwifery.

Richard John Burke.
William Coates (and Galway).
Jephson J. Connell.
Arthur Derham.
John S. Dillon.
Justin F. Donovan.
Charles Good.
Jeremiah Mullane.
Francis H. S. Murphy.
Thomas F. Riordan.
John Jagoe Welply.

Second University Examination in Medicine.

Charles Yelverton Pearson, ... First Honor Class.
Robert Evans Hadden, ... Second Honor Class.

Passed.

John Leonard Aherne, B.A.
T. Gelston Atkins, B.A.
Alfred C. Bennett.
Joseph Crowley.
James Palmer Hanrahan.
James F. R. Holland.
Samuel George Levis.
Thomas Shipsey.
John F. Tuohy.

First University Examination in Medicine.

John Jeffreys Dinnis, ... Upper Pass Division.
Richard John Legge, ... Upper Pass Division.
Patrick Mullane, ... Upper Pass Division.

Passed.

Henry Kingston Allport.
James M'Mullan Bolster.
Hugh Brosnan.
Jeremiah Cotter.
William E. A. Cummins.
Richard Condon Daly.
Pierce Joseph Daly.
George W. Daunt.
Thomas Dorman, B.A.
Denham Francis Franklin.
Archibald Frazer.
James Geraghty.
Daniel J. Griffin.
Daniel Haly.
Stanley Harrington.
Edward Horan, M.A.
John Hosford.
Thomas M'Carthy.
Cornelius Moloney.
Myles William O'Reilly.
Arthur H. Pullin.
Denis Quinlan.
Robert L. Rutherford.
John Tubb Thomas.
David Leopold Williams.

First and Second University Examination in Medicine.

Passed.

Daniel F. Barry.
John J. Hartnett.
Charles Smyth.

School of Civil Engineering.

Degree of Bachelor of Engineering (B.E.)

Passed.

Richard Gifford Campion.
Michael J. M'Mullen.

First University Examination in Engineering.

Robert Scott Day, ... Upper Pass Division.

Passed.

Stephen John Hennessy.
Alexander E. Hull.
Michael J. M'Mullen (Supplem. Jan. 1876)
William H. K. Sandiford.

Appendix B.

List of successful Candidates for Degrees, &c.

University Prizes at Entrance:

Geometry,	James Musgrave,	First.
	Thomas Brown,	Second.
English Composition,	George W. Weir.	

No. VII.—Scholars and Exhibitioners for the Session 1876–77.

Faculty of Arts.

Senior Scholars and Exhibitioners.

In Language, Literature, and History of Ancient Greece and Rome, } John Ryan, B.A.

Modern Languages, Literature, and History, } Joseph J. Healy, B.A.

Exhibitioner—Thomas Farrington, B.A.

Mental and Social Science, S. Lombard Brown, B.A.

Exhibitioner—Michael Keating, B.A.

Mathematics, Robert T. Belcher, B.A.

Natural Philosophy, Thomas M. Corker, M.A.

Chemistry, John Philip Sullivan, B.A.

Exhibitioner—William Kelly, B.A.

Third Year's Scholars.

In Literature.	In Science.
Clarke H. Irwin.	John E. Laffan.
James J. Riordon.	

Second Year's Scholars.

David Gamble Lockhart.	John P. Dalton.
	Matthew Steen.
	Robert J. Sullivan.
	George A. Rountree.
	Edward Gibbings.

First Year's Scholars.

Henry C. Baker.	Henry C. Baker.
George W. Weir.	Jeremiah A. O'Connell.
James Boyd Morrow.	Telford Smith.
Stanley Harrington.	Thomas Brown.
Richard L. Waugh.	Michael J. M'Enery.

Exhibitioners in Science.

James Musgrave.	John Morgan.
John M. M'Namara.	Michael Crowley.

School of Engineering.

First Year's Scholars.

W. E. Burchill.	E. Dixon.

Third Year's Scholar.

R. S. Day.

Faculty of Law.

Senior Scholar.

William C. Taylor, M.A.

First Year's Scholar.

William A. Corker.

Exhibitioner.

P. J. M'Carthy.

FACULTY OF MEDICINE.

First Year.

Patrick Nealon. | R. Hyde.

Second Year.

Joseph M. Roche. | Richard C. Daly.

Exhibitioner.

Patrick Mullane.

Third Year.

Charles Y. Pearson. | Robert E. Hadden.

Exhibitioner.

Joseph E. Crowley.

Fourth Year.

T. P. Hanrahan. | John E. Walshe.

Exhibitioners in Practical Medicine, Surgery, and Midwifery.

PRACTICAL MEDICINE, . . . John O'G. Sandiford.
,, SURGERY, ... Daniel F. Barry.
,, MIDWIFERY, . . . {John O'G. Sandiford, / John E. Walshe,} equal.

PRIZE IN ANCIENT HISTORY.

Special Prize offered for the encouragement of the Study of Ancient History, ... } John Ryan, B.A.

No. VIII.—SESSIONAL EXAMINATIONS.

List of the Students who obtained Honors or Prizes at the Sessional Examinations.

PRIZES AND CERTIFICATES AWARDED FOR THE SESSION 1876–7.

FACULTY OF ARTS.

Third Year.

ENGLISH LITERATURE,	1. Clarke H. Irwin,	Prize.
	2. John E. Laffan,	,,
	3. W. A. Fogerty,	Certificate.
HISTORY,	1. Clarke H. Irwin,	Prize.
	2. John E. Laffan,	,,
	3. W. A. Fogerty,	Certificate.
CHEMISTRY,	1. James J. Riordon,*	Prize.
MINERALOGY AND GEOLOGY,	1. John E. Laffan,†	,,

Second Year.

GREEK,	1. James B. Morrow,	Prize.
	2. George W. Weir,	,,
	3. D. G. Lockhart,	,,
LATIN,	1. Geo. W. Weir,	,,
	2. {D. G. Lockhart, / James B. Morrogh,	,,
FRENCH,	Henry Anderson,	,,
LOGIC,	1. John P. Dalton,	,,
	2. Matthew Steen,	,,
MATHEMATICS,	1. J. P. Dalton,	,,
	2. Matthew Steen,	,,
	3. R. J. Sullivan,	Certificate.
	4. George A. Rountree,	,,
NATURAL PHILOSOPHY,	1. J. P. Dalton,	Prize.

* First in Chemistry Class.

† First in Mineralogy and Geology Class.

Appendix R.

List of the Students who obtained Honors or Prizes at the Sessional Examinations.

First Year.

GREEK,	1. Thomas Brown,	Prize.
	2. Jeremiah Ambrose O'Connell,	,,
LATIN,	1. Jeremiah Ambrose O'Connell,	,,
	2. Michael J. M'Enery, John M. M'Namara, equal,	,,
	4. Thomas Brown, James Musgrave, Robert Thompson, equal,	Certificates.
	7. Telford Smith,	Certificate.
	8. Michael Crowley,	,,
	9. James F. M'Mullen,	,,
ENGLISH LANGUAGE,	1. James B. Morrow,	Prize.
	2. James G. Copithorne,	,,
	3. Thomas Brown, Michael J. M'Enery, Jeremiah Ambrose O'Connell, equal,	Prizes.
	6. Henry C. Baker,	Certificate.
MATHEMATICS,	1. Michael J. M'Enery, Jeremiah Ambrose O'Connell, equal,	Prizes.
	2. Henry C. Baker,	Prize.
	3. Telford Smith,	,,
FRENCH (Senior),	1. James Boyd Morrow,	,,
	2. George W. Weir,	,,
	3. Michael J. M'Enery, Jeremiah Ambrose O'Connell, equal,	Certificates.
,, (Junior),	1. John M. M'Namara,	Prize.
	2. James G. Copithorne,	,,

SCHOOL OF ENGINEERING.

MATHEMATICS,	1. William E. Burchill,	Prize.
	2. E. K. Dixon,	Certificate.
CHEMISTRY,	1. E. K. Dixon,*	Prize.
MINERALOGY AND GEOLOGY,	1. E. K. Dixon, Hugh Tooker, equal,*	,,
NATURAL PHILOSOPHY,	1. R. S. Day,	,,
GEOMETRICAL DRAWING,	1. William E. Burchill,	,,
	2. E. K. Dixon,	,,
OFFICE WORK,	1. Stephen J. Hennessy,	,,

FACULTY OF LAW.

JURISPRUDENCE,	1. William H. Corker, Patrick J. M'Carthy, equal,	Prizes.
ENGLISH LAW,	1. William H. Corker, Patrick J. M'Carthy, equal,	,,

FACULTY OF MEDICINE.

FRENCH,	1. Albert E. Scully,†	Prize.
	Henry Sinclair (non-matriculated),	Certificate of Honor.
NATURAL PHILOSOPHY,	1. William R. Cole, Patrick Nealon, equal,	Prizes.
PRACTICAL CHEMISTRY,	1. William D. Sexton,	Prize.
	2. John Hosford, Joseph Roche, equal,	Prizes.

* Second in the whole class.
† Bracketed with James B. Morrow (Faculty of Arts) in Senior Class of First Year.

Second Year.

ANATOMY AND PHYSIOLOGY,	1. John E. Lane,	Prize.
	2. Joseph Roche, William D. Sexton, equal,	,,
	4. Myles W. O'Reilly,	,,
	5. Jeremiah Cotter,	Certificate.

Third Year.

	1. Charles Y. Pearson,	Prize.
	2. Robert E. Hadden,	,,

First Year.

PRACTICAL ANATOMY,	1. Albert E. Scully,	,,
	2. Patrick Nealon,	,,
	3. Michael H. Feeny,	,,
	John Moran,	Certificate of Honor.

Second Year.

	1. Jeremiah Cotter,	Prize
	2. William A. Cummins,	,,
	3. John Hosford,	,,
	4. Patrick Mullane,	,,
	5. Joseph Roche,	Certificate.

Third Year.

	1. Charles Y. Pearson,	Prize.
	2. Joseph Crowley,	,,
	3. Robert E. Hadden,	,,

Fourth Year.

	E. Magner,	Certificate of Honor.
MATERIA MEDICA,	1. Jeremiah Cotter,	Prize.
	2. Richard C. Daly,	,,
	3. Edward Horan, M.A.,	Certificate.
	4. Joseph Roche,	,,
	5. William E. A. Cummins,	,,
	6. John P. Sullivan, B.A.,	,,
SURGERY,	1. Robert E. Hadden,	Prize.
	2. Alfred C. Bennett,	,,
	3. Charles Y. Pearson,	,,
MEDICINE,	1. John E. Walshe,	,,
	2. Daniel F. Barry,	,,
	3. John O'G. Sandiford, James P. Hanrahan, equal,	Certificates.
MIDWIFERY,	1. Robert E. Hadden,	Prize.
	2. Joseph Crowley,	,,
	3. Charles Y. Pearson,	,,
MEDICAL JURISPRUDENCE,	1. Daniel F. Barry, John O'G. Sandiford, John E. Walsh, equal,	Prizes.
	4. James P. Hanrahan,	Certificate.
	5. John F. Tuohy,	,,
PROSECTORS IN PRACTICAL ANATOMY DURING THE SESSION,	Daniel F. Barry. Robert E. Hadden. Daniel Lehane.	

No. IX.—EARLY ENGLISH TEXT SOCIETY'S PRIZES; AND NEW SHAKSPERE SOCIETY'S PRIZES.

EARLY ENGLISH TEXT SOCIETY'S PRIZES,	Michael J. M'Enery, James G. Copithorne, equal,	First Prize.
	Jeremiah Ambrose O'Connell,	Second Prize.
NEW SHAKSPERE SOCIETY'S PRIZES,	Robert J. Sullivan, Thomas Brown, equal.	

Appendix B.

Subjects Lectured on, &c.

No. X.

TABLE CONTAINING THE NAMES OF THE SEVERAL SUBJECTS LECTURED UPON DURING THE SESSION 1876–77, THE NUMBER OF LECTURES GIVEN ON EACH SUBJECT, AND THE TOTAL NUMBER OF STUDENTS ATTENDING THE CLASSES IN EACH SUBJECT.

	No. of Lectures on each Subject.	Total No. of Students attending the Classes in each Subject.
Greek,	173	34
Latin,	164	31
English Language,	28	26
,, Literature,	93	6
History,	67	7
French,	210	67
Logic,	30	13
Metaphysics,	54	1
Political Economy,	32	3
Mathematics,	156*	42
Natural Philosophy,	225	56
Chemistry, Theoretical,	76	48
,, Practical,	43†	52
Geology and Mineralogy,	60	9
Natural History,	72	38
English Law,	48	3
Jurisprudence,	24	2
Anatomy and Physiology,	119	58
,, Practical,	114	127
Medicine,	59	34
Midwifery,	57	27
Surgery,	67	34
Medical Jurisprudence,	36	33
Materia Medica,	64	55
Engineering,	300	20

Appendix C.

Reports of the Professors.

APPENDIX C.

No. XI.

REPORTS OF PROFESSORS FOR THE SESSION, 1876–1877.

FORM OF CIRCULAR SENT TO EACH PROFESSOR.

RETURN to be filled up by the Professor of , and to be returned to the Registrar, so filled up, for the official information of the President, on or before the ., being for the Collegiate Session

A.—As to the Course or Courses of Lectures given by the Professor. 1st. Duration and extent of the Course; number of Terms. 2nd. Number of weeks of Lectures in each Term. 3rd. Number of Lectures weekly, and days and hours of Lectures.

B.—The description or title of the Course or Courses of Lectures delivered, and a general abstract of the subjects of instruction contained in the Course, and the title of the Text-books recommended.

* In consequence of the subdivision of the First Year's Class on certain days the number of lectures actually given to this class was about 118, although appearing only 76 on the roll, so that the total was in reality 194 and not 156. Many hours, besides, were devoted to tutorial instruction, which do not appear on the roll.

† As this class had to be divided owing to want of accommodation in the laboratory, the number of lectures actually delivered was double the number appearing on the roll, namely, 86.

C.—Whether the Lectures are illustrated by reference to maps, diagrams, specimens, or experiments; and a general notice of the kind of illustrations used.

D.—Whether any method of Tutorial, or other special instruction, is employed, as by setting out portions of Text-books for lessons, by themes, or exercises in composition, or problems; and whether Special Class Examinations are held, and at what time; or whether Herborization Excursions, or Field Exercises, are given.

E.—What faculties or division of Students are those attending Courses of Lectures of the Professors making the return.

F.—The number of students attending each Course—distinguishing Matriculated and Non-Matriculated Students; and the general regularity of attendance.

G.—The general conduct of Students at the Professor's Lectures; and the general state of discipline as regards the Professor's Classes.

H.—The general condition of the department of which the Professor has charge, as to supplies, fitments, cleanliness, and accommodation, for the purpose of instruction.

The Professor, in making the above returns, is requested to mark the answers with the letter designating the portion of the form of return, as above, to which each answer refers.

Signed, by order of the President,

ALEXANDER JACK, *Registrar.*

FACULTY OF ARTS.

REPORT of the PROFESSOR of GREEK.

A.—1. Three terms.

2. First term contained between seven and eight weeks; second term between nine and ten weeks; third term between five and six weeks.

3. Junior class, four lectures weekly; senior class, four lectures weekly; extra and third year's class, two lectures weekly.

B.—The course of Greek Language and Literature. Junior class: Anabasis of Xenophon, Book IV.; Hippolytus of Euripides, 1–1000; Curtius' Greek Grammar. Senior class: Odyssey, Books I. to VI. (inclusive); Euripides' Hippolytus; Demosthenes in Midiam; Curtius' Greek Grammar. Third year's class: Agamemnon of Æschylus.

C.—The lectures were occasionally illustrated by reference to maps and diagrams.

D.—The students prepared a portion of the text-book for each lecture. They also wrote exercises in prose composition.

E.—Arts.

F.—Thirty-eight matriculated; one non-matriculated. Regularity of attendance fair.

G.—Very good.

H.—The lecture-room would be much better adapted for the instruction of large classes were it arranged as a theatre, instead of having all the benches placed upon the same level.

VAUGHAN BOULGER.

REPORT of the PROFESSOR of LATIN.

A.—The course extended through three terms. First term, eight weeks; second term, nine weeks; third term, six weeks. Junior class, four lectures weekly; senior class, three lectures weekly.

Appendix C.

Reports of the Professors.

B.—The Latin Language. Junior class: Horace, Epistles, Book I., 11–20; Cicero, Tusculan Disputations, part of Book II. Senior class: Cicero, Tusculan Disputations, part of Book III.; Terence, Phormio, as far as Act III., scene 2.

C.—The lectures were illustrated by references to the art-collections belonging to the College.

D.—The students prepared a portion of the text-book for each lecture; they also wrote Latin exercises in prose and verse.

E.—Students in Arts.

F.—Thirty-one; all matriculated. The attendance was on the whole satisfactory.

G.—Perfectly satisfactory.

H.—I have had occasion to call attention to defective sanitary arrangements.

B. Lewis.

Report of the Professor of History and English Literature.

A. I.—History. *Ordinary course.* (1st.) Two terms. (2nd.) *First term,* nine weeks; *second term,* between nine and ten weeks. (3rd.) Three lectures weekly: Mondays, Wednesdays, and Fridays, at 12 o'clock. History. *Honor course.* (1st.) One term. (2nd.) About six weeks. (3rd.) Number of lectures, and days and hours weekly, irregular.

N.B.—In the *ordinary History course,* 48 lectures were given during the session; in the *Honor course,* 19; total, 67 lectures.

II.—English Literature. *Ordinary course.* (1st.) Two terms. (2nd.) *First term,* nine weeks; *second term,* between nine and ten weeks. (3rd.) Three lectures weekly: Mondays, Wednesdays, and Fridays, at 10 o'clock. English Literature. *Honor course.* (1st.) Two terms. (2nd.) Thirteen weeks. (3rd.) Number of lectures, and days and hours weekly, irregular.

N.B.—In the *ordinary English Literature course,* 54 lectures were given during the session; in the *Honor course,* 39; total, 93 lectures.

III.—The English Language. *Ordinary course.* (1st.) One term. (2nd.) Between nine and ten weeks. (3rd.) Three lectures weekly: Tuesdays and Thursdays, at 11 o'clock, Saturdays at 10 o'clock.

N.B.—In the *English Language course,* 28 lectures were given during the session.

The total number of lectures in the three subjects (History, English Literature, the English Language), was 188.

B. I.—History. *Ordinary course,* the History of Great Britain and Ireland from 1589 to 1815. *Honor course,* the History of France during the same period. Text-books optional.

II.—English Literature. *Ordinary course,* History of English Literature from Chaucer to the present day, with special critical studies of Shakspere (*King John*); Milton (*Paradise Lost,* Books I. and II.); Pope (*Essay on Man*); Burke (*French Revolution*); Byron (*Childe Harold,* Cantos III. and IV.); Macaulay (Essays on *Clive* and *Warren Hastings*). *Honor course,* special critical studies of Shakspere (*Julius Cæsar* and *Henry V.*); Bacon (*Essays*); Pope (*Satires* and *Epistles*); Gray (*Elegy, Bard,* and *Progress of Poesy*); Burke (*Two Speeches on America*); Scott (*Kenilworth*); Wordsworth (*Excursion,* Book I.). Text-books, the Clarendon Press series recommended, when available.

III.—The English Language. *Ordinary course,* History and Illustrations of the Development of the Language from the Teutonic Settle-

ments in Britain to the present day. A Sketch also of the History of English Literature from *Beowulf* to the *Canterbury Tales* was included in the course. Text-books recommended, Morris (*Historical Outlines*); Rask (*Anglo-Saxon Grammar*); Chaucer (Prologue to the *Canterbury Tales*, edited by Morris).

C.—The Historical portions of the lectures are generally illustrated by reference to maps.

D.—In the *English Language course*, lessons appointed in the *Historical Outlines of English Accidence;* in Anglo-Saxon Grammar, in the English of Chaucer; themes set for English Essays; exercises required in paraphrasing Old English, in Historical Analyses, &c. In *English Literature course*, exercises in Literary Criticism, &c.

E.—Faculty of Arts.

F. I.—History. *Ordinary course*, 7 (matriculated); *Honor course*, 2 (matriculated).

II.—English Literature. *Ordinary course*, 6 (matriculated); *Honor course*, 2 (matriculated).

III.—The English Language. *Ordinary course*, 26 (matriculated).

Attendance in all classes was very good.

G.—Good.

G. F. Armstrong.

Report of the Professor of Modern Languages.

A.—1. There were three courses of lectures on the French language and literature during the session: the first (1st division) for students of the second year; the second, senior French (2nd division); and the third (3rd division) junior French.

2. There were three lectures a week in each division during three terms, from 12 to 3.

3. The first term comprised nine weeks; the second, seven weeks; and the third, seven weeks.

B.—The lectures were on the French language and literature, and comparative grammar, with reading, exercises, compositions, and translations; the text-books being Demogeot's *Littérature Française* and *Textes Classiques.*

C.—This department requires no illustrations, &c., &c.

D.—The instruction given is chiefly tutorial; one lecture a week only being given on the syntax, literature, and comparative grammar—the other days being taken up with reading and translations.

E.—The students in the three divisions belonged to the Faculties of Arts and Medicine, and to the Engineering Department.

F.—The number of students was as follows: 1st division, 4; 2nd division, 32; 3rd division, 31.

G.—The general conduct of the students has been very satisfactory.

H.—The general condition of the rooms and attendance excellent.

R. de Vericour.

Report of the Professor of Logic and Metaphysics.

A.—On Logic and Metaphysics.—1. Logic, one term; Metaphysics, two terms. 2. First term, eight weeks; second term, eleven. 3. Logic, Tuesdays, Thursdays, and Saturdays, at eleven o'clock. Metaphysics, Tuesdays and Thursdays, at one o'clock, and on Saturdays, at twelve o'clock.

Appendix C. Reports of the Professors.

B.—Logic, Deductive and Inductive—Fowler and Jevons, parts of Thomson, Mill, and Bain. Metaphysics—History of Philosophy and Psychology; Sir W. Hamilton's Lectures.

C.—No illustrations are used except such as are drawn or written on the board during the course of the lectures.

D.—Both the professorial and tutorial systems are used.

E.—Logic, second year's students in Arts; Metaphysics, third year's students in Arts.

G.—Conduct of students in the class-room unexceptionable.

H.—Satisfactory.

G. S. Read.

Report of the Professor of Mathematics.

A.—1. The courses of lectures were delivered to two classes consisting, one of the first year's students in Arts and Engineering, and the other of second year's students in these faculties. The lectures extended over the three terms.

2. In the first term there were nine weeks of lectures; in the second, eleven; and in the third, six.

3. The hours of lectures in the second year were 1–2 on Mondays, Wednesdays, and Fridays; for the junior division of the first year's class they were from 12–1 on Mondays, Wednesdays, and Fridays; and to the senior division on Tuesday at 9, Wednesday at 12, and Friday at 9. Besides these regular lectures, many hours were devoted to tutorial instruction of the students, of which no account was kept.

B.—The first year's course of lectures extended over Arithmetic, Algebra, Geometry, and Trigonometry, and the text-books recommended for perusal were—Wilson's "Elementary Geometry" (third edition), Euclid, Book VI., Todhunter's Elementary and more advanced Algebra, Gross' "Algebra," Todhunter's "Elementary Trigonometry," and Todhunter's "Trigonometry," Salmon's "Higher Algebra." The subjects of lecture for the second year were—Analytical Trigonometry, Spherical Trigonometry, Geometry of Elementary Solid Figures, Plane Co-ordinate Geometry, Geometrical Conic Sections, Differential Calculus, Integral Calculus.

Text-books recommended.—Todhunter's "Trigonometry," Todhunter's "Spherical Trigonometry," Todhunter's "Theory of Equations," Todhunter's "Co-ordinate Geometry" and Salmon's "Conic Sections," Williamson's "Differential Calculus," Williamson's "Integral Calculus."

C.—The only illustrations given were figures and diagrams on the black board.

D.—Exercises were set regularly in each class, and there were also frequent oral examinations, and also written examinations at different periods of the course, according to the natural subdivisions of the subjects.

E.—The students attending these lectures were either Arts or Engineering students.

	Arts Students.		Engineering Students.	
	Matriculated.	Non-Matriculated.	Matriculated.	Non-Matriculated.
F.—First Year,	26	1	7	–
Second Year,	7	–	1	–

Attendance was fairly satisfactory.

G.—General conduct excellent; discipline good.

H.—As to the condition of the department, I have to repeat what I have frequently said before about the unwholesomeness of the stove in the lecture-room; otherwise there is no cause for complaint in regard to it. The adjoining private-room, which might be of great use if it were comfortable, is still so draughty, notwithstanding the recent efforts to improve it, that it can scarcely be much used except for reading, except in very fine weather.

C. NIVEN.

REPORT of the PROFESSOR of NATURAL PHILOSOPHY.

A.—Four courses of lectures, each three terms; nine weeks in the first, ten in the second, six in the third. In the classes of Mathematical Physics three lectures were delivered in each week; in the other classes two lectures weekly.

B.—In Mathematical Physics the subjects were—Mechanics, Optics, Hydrostatics, Astronomy. In Engineering Physics—Practical Mechanics, Thermodynamics. In Experimental Physics—Hydrostatics, Heat, Light, Magnetism, and Electricity.

Text-books.—In Mathematical Physics—Newth's "Mechanics," Todhunter's "Statics," Tait and Steel's "Dynamics," Parkinson's "Optics," Godfray's "Astronomy." In Experimental Physics—Everett's translation of Deschanel's Physics, Ganot's "Traité de Physique."

C.—The lectures were illustrated by experiments.

D.—In Mathematical and Engineering Physics the tutorial method of instruction was chiefly adopted.

E.—The course of Experimental Physics was attended by students of the first year in Medicine and second year in Engineering. The senior class of Mathematical Physics by students of the third year in Engineering, the junior class of Mathematical Physics by students of the second year in Arts. Engineering Physics by students of the third year in Engineering.

F.—Experimental Physics, 35. Senior class of Mathematical Physics, 8. Junior Mathematical Physics, 13. Engineering Physics, 8. The attendance was regular.

G.—The general conduct of the students was most satisfactory.

H.—When the improvements in the Physical Laboratory, now in process of being carried out, are completed, the arrangements for this department will be satisfactory.

JOHN ENGLAND.

REPORT of the PROFESSOR of CHEMISTRY.

A.—Two courses, one on Theoretical and the other on Practical Chemistry. The former extended over three, and the latter over two terms. Theoretical Course, three lectures weekly, at 11 o'clock. Practical course, six lectures weekly, five at 2 and one at 11 o'clock (Saturday).

B.—The Theoretical course embraced both Inorganic and Organic Chemistry. In the Practical course, Qualitative Analysis was taught. Text-books recommended—Fownes, Roscoe and Naquet, Schorlemmer's Chemistry of Carbon Compounds, Armstrong's Organic Chemistry, Galloway's Qualitative Analysis.

C.—The lectures were illustrated by diagrams, experiments, and specimens.

D.—Both the tutorial and professorial methods were employed.

Appendix C.

Reports of the Professors.

E.—The lectures were attended by Arts, Engineering, and Medical students.

F.—The Theoretical Course was attended by 40 matriculated and 8 non-matriculated students, and the Practical Course by 47 matriculated and 5 non-matriculated students. Attendance very good.

G.—The conduct of the students was excellent.

H.—The arrangements for carrying on the business of the department are quite satisfactory.

MAXWELL SIMPSON.

REPORT of the PROFESSOR of NATURAL HISTORY.

A.—1. Seventy-two lectures; three terms. 2. In the first, 8; in the second, 11; in the third, 6 weeks of lectures. 3. Three, from 3 to 4, P.M., on Monday, Wednesday, and Friday.

B.—Zoology and Botany, including the general principles of Biological Science. The text-books were those of Henfrey, Hooker, Huxley, and Macalister.

C.—The lectures were illustrated by reference to specimens and diagrams.

D.—Tutorial instruction was seldom employed. There were herborizations at the end of the third term.

E.—Students of the third year in Arts, of the first in Medicine.

F.—Thirty-eight students attended, namely—4 in Arts and in Medicine 34, of whom 7 were non-matriculated. Five students attended diligently; 29 duly; and 4 were disqualified for insufficient attendance.

G.—The general conduct of the students was very good. So, likewise, was the state of discipline.

H.—As stated in previous report.

J. REAY GREENE.

REPORT of the PROFESSOR of GEOLOGY and MINERALOGY.

A.—The course of lectures delivered by the Professor extended over the first and second terms of the session; the first included 9 and the second 11 weeks. The number of lectures delivered each week was 3, the days being Tuesdays, Thursdays, and Saturdays. The hour on the former days was from 2 to 3, P.M., and on Saturdays, from 12 to 1, P.M. The total amount of lectures in the course was 60.

B.—The course embraced Geology, Palæontology, Physical Geography, and Mineralogy, the text-books used being Lyell's Student's Elements of Geology, Jukes' Manual of Geology, Lyell's Principles of Geology, Nicholson's Palæontology, Herschell's Physical Geography, Rutley's Mineralogy, and Nicol's Elements of Mineralogy.

C.—Maps, diagrams, sections, specimens, and models were used in illustrating the lectures.

D.—The method of instruction was professorial. Near the end of the course excursions were made for practical instruction in Geology and Mineralogy.

E.—The students attending the course were of third year's Arts and first year's Engineering students.

F.—The number attending the lectures was 9, all being matriculated, and the attendance good.

G.—The conduct of the students during lectures was, in all respects, satisfactory, and the discipline very good.

H.—As concerns fitments, cleanliness, and accommodation, these were all such as the Professor could desire.

ROBERT HARKNESS.

School of Engineering.

Report of the Professor of Civil Engineering.

A.—1. Each course extends through three terms. 2. First term, 9 weeks; second term, 11 weeks; third term, 5 weeks. 3. Three lectures per week in each course. Students of first year, Monday, Wednesday, Friday, 10, A.M.; second year, Tuesday, Thursday, Saturday, 10, A.M.; third year, Monday, Wednesday, Friday, 12, noon. Office open, Tuesday, Thursday, Friday, 10, A.M., to 2, P.M.

Number of lectures, 75 to each class. Total, 300.

B.—*First year.*—Descriptive Geometry; Orthographic Projection; Shadows; Isometric Projection; Perspective; Elements of Ornamental Architecture. Text-books: Hall's "Descriptive Geometry"; "Engineer and Machinist's Drawing Book"; Rickman's "Architecture." *Second year.*—Surveying, Levelling, and Mensuration. Text-books: Rankine's "Civil Engineering"; Cotton's "Manual of Railway Engineering." Oblique Bridges; Text-book: Buck's Treatise. Hydraulics; Text-books: Downing's "Hydraulics"; Neville's "Hydraulic Formulæ." *Third year.*—Materials used in Construction; Strength of Materials; Stresses in Structures; Principles of Construction of Bridges, Roads, Railways; Supply of Towns with Water. Text-books: Rankine's "Civil Engineering"; Stoney's "Theory of Strains in Girders"; Fairbairn's "Iron Manufacture"; Shelley's "Workshop Companion"; Barry's "Railway Appliances"; references to many of the books in the Library. *Drawing Office.*—First year students are employed in drawing the problems given at lectures, and easy examples of their application, and in shading simple bodies; those of the second and third year in making working drawings of examples of the subjects of lectures, and in mapping.

C.—Illustrated by reference to maps, drawings, and instruments.

D.—Both the tutorial and professorial methods of instruction are employed, according to the subject of lecture. Instruction in the field is given (see class-roll). The apparatus for the purpose having been completed, experiments on the strength of cement briquettes were made with the third year's class.

E.—Students in the department of Civil Engineering.

F.—Students of first year, Matriculated,		7	Non-matriculated,		1
„	second year, „	1	„		–
„	third year, „	8	„		–
Attending special classes, „		3	„		–
		19			1
		1			
		20			

The attendance of most of the students has been good.

G.—Conduct of students generally good.

H.—The condition of the department has undergone little change during the last few years.

Alexander Jack.

Faculty of Law.

Report of the Professor of Jurisprudence and Political Economy.

A.—1. In Political Economy, and in Jurisprudence, 2 terms each.

Appendix C.

Reports of of the Professors.

2. In first term, in Political Economy, 4 weeks; in Jurisprudence 2 weeks. In second term, in Political Economy, 4 weeks; in Jurisprudence, 4 weeks.

3. Four lectures weekly in each class.

B.—In Political Economy the books recommended are—Mill, A. Smith, Goschen, Mills, &c.; in Jurisprudence—Maine, Austin, Stephen, &c.

C.—None.

D.—The method almost wholly tutorial; portions of text-books almost daily set for lessons; examinations and discussions of the subject almost daily.

E.—In Political Economy, third year's Arts; in Jurisprudence, first year's Law.

F.—In Political Economy, 3 matriculated; in Jurisprudence, 2 matriculated.

G.—Very good.

H.—Sufficient.

R. H. Mills.

Report of the Professor of English Law.

A.—The lectures delivered in the First Term of the session commenced on the 1st, and were continued until the 22nd of December. In that Term only eight lectures (instead of twelve as usual), were delivered to one class; this was caused by the circumstance that students who are apprentices to attorneys, and who desire to attend the law lectures in this College, cannot do so at the periods usually fixed (shortly after the close of Michaelmas and Hilary Law Terms), as the lectures in Dublin of the "Incorporated Society of Attorneys," &c., are delivered during Term, and continued to a period long after Term has ended. By the rules of the Society attendance on these lectures is rendered compulsory on every apprentice, and no recognition is given by the Council of the Society to the Law Lectures of any College or other body in substitution for those delivered by their own lecturer. In the Second Term (16th February to 14th March), the usual number (twenty-four) of the course was completed; the lectures were for the same cause not commenced at so early a period as usual, and (no more than four lectures having been delivered in any week), were necessarily continued to a later date, causing inconvenience to the same class, whose attendance at the assize courts (then sitting) is desirable.

B.—The history and principles of the Law of Real Property occupied the attention of the class of the first year; the subjects being treated of in the order of the chapters in Mr. Joshua Williams' work, which is used as the text-book. The constitution, jurisdiction, and procedure of Courts, with special reference to Criminal Law, Evidence, &c., formed the subject of readings and examinations with the senior class. The text-books were the third and fourth volumes of Mr. Sergeant Stephen's Commentaries.

C.—Illustrations are given by references to cases, and their bearing on the matter treated of explained.

D.—Portions of the text-books and other suitable reading are pointed out for study, and questions asked on the subject of the readings, so as to ascertain the progress made by them.

E.—Law.

F.—Three.

G.—The conduct of the students was satisfactory in every respect.

H.—Some difficulty arises often in obtaining a vacant class-room in which to lecture.

Mark S. O'Shaughnessy.

Faculty of Medicine.

Report of the Professor of Anatomy and Physiology.

A.—Three courses, five and sometimes six days weekly, during the first, second, and part of the third term. Anatomy and Physiology at one o'clock; Practical Anatomy at twelve o'clock. Anatomy and Physiology, 119 lectures and examinations; Practical Anatomy, 142 demonstrations.

B. I.—*Anatomy and Physiology.*—(1.) Histology, an account of the tissues of the body; (2), the Anatomy and Physiology of the organs of digestion, respiration, circulation, excretion, and reproduction; (3), the Anatomy and Physiology of the lymphoid organs, brain, spinal cord, organs of special sense and voice; (4), Embryology, including a description of the development of the principal organs. As the subjects embraced in this course cover a very extensive field, a few of them are treated of only in alternate sessions. *Text-books*—Quain's "Anatomy" and Kirke's "Physiology." Senior students are recommended to read in addition Foster's "Text-book of Physiology," Carpenter's "Human Physiology," Frey's "Histology."

II.—*Histology and Practical Physiology.*—Instruction in this department will be given next session in the *Physiological Laboratory*, which has been lately provided with microscopes and the apparatus necessary for performing experiments on circulation, respiration, innervation, &c. *Text-books*—Foster's "Practical Physiology," Schäfer's or Rutherford's "Histology;" and for senior students, "Handbook for the Physiological Laboratory," by Burdon Saunderson, Klein, &c.

III.—*Practical Anatomy.*—The Anatomical Demonstrations are given on five days in the week by the Senior Demonstrators, and occasionally by the Professor of Anatomy. The course includes—(1), the Descriptive Anatomy of the bones and ligaments; (2), the Topographical Anatomy of the limbs, head, and neck, and of the thoracic and abdominal cavities, with the exception of the viscera. *Senior division of the class.*—The Professor of Anatomy has a special meeting of the senior division of the class every Tuesday, when the more abstruse subjects of the course are discussed. *Junior division of the class.*—The Junior Demonstrator meets the junior students every Wednesday after Christmas at 10 o'clock, A.M., for special instruction in Osteology. The dissecting-room is open from 9 o'clock, A.M., till 4 o'clock, P.M., daily; and the dissections of the students are superintended by the Professor, Demonstrators, and Prosectors of Anatomy. *Text-books*—Ellis's "Demonstrations" and Quain's "Anatomy." For consultation—Holden or Wagstaffe's "Osteology," Gray's "Anatomy," Holden's "Medical and Surgical Landmarks," Cruveilhier's "Anatomy."

C.—The lectures and demonstrations are amply illustrated by diagrams, plates, models, moist and dry specimens from the Anatomical Museum, microscopic preparations, recent dissections and experiments.

D.—In Anatomy and Physiology *oral* examinations are frequently held, usually on Wednesday or Saturday; there are also *written* examinations immediately after Christmas, as well as at the close of the session. In Practical Anatomy *oral* examinations are held weekly.

E.—*Faculty of Medicine.*

F.—In Anatomy and Physiology—matriculated students, 51; non-matriculated, 7 (=58).

In Practical Anatomy—matriculated students, 111; non-matriculated, 16 (=127).

Attendance on both classes good.

G.—Excellent.

Appendix C.

Reports of the Professors.

H.—As soon as the contemplated improvements have been completed, the anatomical department will be in a very satisfactory condition. There is still, however, a deficiency in diagrams, osteological specimens, and physiological apparatus. I strongly recommend the establishment of a summer session in the Medical School, so as to relieve the pressure at present existing on the time and energies of the medical student.

J. J. CHARLES.

REPORT of the PROFESSOR of MATERIA MEDICA.

A.—Six months. Sixty-four lectures. Three lectures weekly, Tuesdays and Thursdays, 3 to 4 o'clock, P.M.; Saturday 12 o'clock, noon, to 1 P.M.

B.—Pharmacology. Pharmaco-dynamics, Therapeutics. The action of Medicinal Substances on the healthy animal. Their action in disease. Materia Medica, including a classification of Medicines. A systematic description of drugs, their physical and chemical characters. Posology. Formulation.

The only text-book adopted is the British Pharmacopœia. The College possesses an extensive library of works on this subject, to which the students are from time to time referred.

C.—The lectures are illustrated by chemical experiments. Specimens of the drugs named in the British Pharmacopœia, and of other drugs of recognized therapeutic value. Dry specimens of medical plants. Recent specimens, when obtainable. Verification of the purity of the drugs supplied to the museum by the application of the tests put forward in the British Pharmacopœia, and of other tests. The application of the microscope for similar purposes, and occasionally experiments on living animals.

D.—Certain portions of the British Pharmacopœia are commenced on Saturday as the subjects for examination on Saturday following.

E.—Faculty of Medicine.

F.—Sixty-two students. The attendance was very regular.

G.—Conduct of the students was invariably good, and discipline excellent.

H.—With respect to supplies, cleanliness, and attendance I have nothing to complain, but the fitments and accommodations were as imperfect as they were last year. These defects, however, will be remedied next session if the proposed additions to the medical building are completed in due time.

I may be here permitted to observe that the position of the medical department of this College cannot, in my opinion, be raised to that of a first class medical school, until a regular summer session be established, an arrangement which exists, and is found to be indispensable in all the medical schools of this kingdom, with, I believe, the exception of the schools connected with the Queen's Colleges of Cork and Galway. My reasons for forming this opinion are—1st: The lectures, as arranged at present, are too crowded together. The student is hurried from one lecture-room to another, and has no time to digest what he receives. 2nd. The lecturer is equally hurried; he is confined to a bare hour, has no opportunity, except by trenching on this hour, to prepare his experiments, put up his diagrams, &c., and answer any questions the members of his class may desire to ask him, after lecture. 3rd. In consequence of the block thus caused, should a professor be unable from any cause to deliver a lecture, he has no opportunity to remedy the loss so caused to the student. 4th. The College, so far as the medical department is con-

cerned, is closed for half the year, and thus the advantages it offers in libraries, museums, botanic gardens, &c., are, to a great extent, lost to the student. 5th. Certain subjects, notably and for obvious reasons, Botany, Materia Medica, and others, which it may be considered out of place for me to specify, could be better taught in summer than in winter.

Appendix C.
Reports of the Professors.

MATTHIAS O'KEEFFE.

REPORT of the LECTURERS on MEDICAL JURISPRUDENCE.

Medical portion.

A.—Twenty-four lectures. Three weekly, on Monday, Wednesday, and Friday, at 2 o'clock, P.M.

B.—Medical Jurisprudence. Thanatology. Examination of the dead body—Forms of violent death—Signs of—Wounds—Stains—Hair, &c. Disputed sexual relations. Disputed mental aberration. Toxicology.

C.—Specimens of the various poisons. Recent specimens of the most important indigenous poisonous plants—Experiments on animals—Chemical analysis of poisoned articles of food, and of the viscera and their contents in animals poisoned.

D.—Not considered necessary in this subject.

E.—Faculty of Medicine.

F.—Thirty-two students.

G.—Most excellent.

H.—The condition of the department as to fitments and accommodation was as bad as that described in my last report. This disadvantage will be removed by the new buildings in contemplation.

I must here be understood to repeat my opinion as to the necessity for a Summer Session, and that the subject of Medical Jurisprudence ought to be one of those embraced in a Summer Course.

MATTHIAS O'KEEFFE.

Legal portion.

A.—The portion (one third) of the course which it is my duty to deliver was given before the close of the first term.

B.—The matter was divided into subjects belonging to (1) Forensic Medicine; (2) Medical Police, attention being particularly directed to those points in which the peculiar and special knowledge of a medical man may be most usefully, employed in legal investigations whether civil or criminal in their nature.

C.—Illustrations were given by references to cases on the subjects treated of in Traill's Outlines, and the works by Dr. Taylor, Beck, Casper, Paris and Fonblanque, Winslow, Mayo, Bucknill, &c.; and the bearing upon them of the state of the law explained from the Treatises of Sir V. Russell, Sergeant Woolrych, Sergeant Stephen, and other approved legal authorities. The Irish Sanitary Acts and the law and practice in relation to lunatics, and to coroners' inquests, also formed the subject of readings. Suggestions as to study are given.

D.—No more than four lectures were delivered in each week during the period.

E.—Medicine.

Appendix C.

Reports of the Professors.

F.—33 returned on the roll, of whom 2 were absent during the course. Of the remaining 31, 10 lectures and upwards of the 12 lectures delivered were attended by 23 students.

G.—The conduct of the class was good.

H.—I have no requirement to make.

MARK S. O'SHAUGHNESSY.

REPORT of the PROFESSOR of SURGERY.

A.—Practice of Surgery. 1st. Commencing November 3rd, ending May 1st, three terms. 2nd. Three lectures every week during the three terms. 3rd. Three lectures weekly, on Tuesdays and Thursdays from 4 until 5 o'clock, and on Saturday from 1 to 2 o'clock.

B.—The Theory and Practice of Surgery, and Operative Surgery. Holmes, Bryant, Erichsen.

C.—Pathological preparations, Diagrams, Operations on the subject.

D.—Occasional examinations.

E.—Faculty of Medicine.

F.—General regularity of attendance very good. Matriculated, 32; non-matriculated, 2.

G.—The general conduct of the students, and the general state of discipline of the class, has been unexceptionably excellent.

H.—The department is deficient in supplies and fitments, and its proximity to the dissecting room is very objectionable, but is good and suitable in other respects.

W. K. TANNER.

REPORT of PROFESSOR of MIDWIFERY.

A.—Lectures on Midwifery. Duration, six months. About 60 lectures. Three lectures weekly, Monday, Wednesday, Friday, at 4 o'clock.

B.—Course of lectures on Midwifery. Physiology of reproduction and gestation. Parturition in its various bearings, theoretical and practical. Diseases of childbed. Management of infants.

C.—Large coloured diagrams, plates, models, casts, anatomical and other preparations, &c.

E.—Students of the Faculty of Medicine.

F.—Matriculated students, . . .	22
Non-matriculated, ...	5
Total attending the course, .	27

Attendance generally very regular.

G.—General conduct and discipline of the students very good.

H.—The department is very deficient in the necessary preparations, &c., for the illustration of the lectures. A complete Obstetric Museum is a great desideratum.

J. R. HARVEY.

REPORT of the PROFESSOR of the MEDICINE.

A.—Lectures on the Practice of Physics. Delivered in three terms of variable duration, on Mondays, Wednesdays, and Fridays, at 3 o'clock.

B.—The course embraces all subjects belonging to Theory and Practice of Physic, commencing with fevers, and then passing to the diseases of organs situated in the head, the chest, and the abdominal cavity.

Diseases of blood origin are introduced at convenient parts of the course. *Appendix C.*

Text-books—Watson, Tanner, Flint on Practice of Physic.

Reports of the Professors.

C.—Lectures illustrated by Pathological specimens and plates.

D.—The classes are occasionally examined during the course.

E.—Students of the Medical Faculty.

F.—Thirty students attended. I am not furnished with the means of knowing the matriculated from the non-matriculated.

G.—Nothing could be better than the conduct of the students.

H.—As many very necessary improvements are about to be made in this department it is not necessary to refer to them in detail.

DENIS C. O'CONNOR.

No. XII.—REPORT OF LIBRARIAN FOR SESSION 1876–77.

Report of the Librarian.

The number of volumes in the Library at the date of this Report is 22,659. They may be classified as follows:—

Mathematics, {Pure,	849	European Language, &c.,	1,761
Mathematics, {Mixed,	770	Celtic do.	83
Chemistry,	1,063	History, Antiquities, &c.,	3,278
Botany and Zoölogy,	1,865	Biography,	594
Medical Sciences,	2,856	Geography, Voyages, &c.,	637
Theology, &c.,	332	Engineering,	568
Logic and Metaphysics,	468	Agriculture,	228
Jurisprudence, &c.,	648	Fine Arts,	225
Education,	233	Bibliography,	120
Law,	940	Encyclopædias,	634
Ancient Classical Literature,	2,044		
Sanscrit, &c.,	114	Total,	22,659
Geology,	765		
English Language, &c.,	1,584	Increase over last year,	1,141

Of these 1,141 volumes, 629 were presented, the remainder purchased by the Council of the College.

The Library has suffered no loss in any description of property since date of last report.

Discipline is excellent. There was no complaint of any kind during the session.

The proposed alteration in the windows, by substituting plate glass for the original small diamond-shaped panes, will obviate the drafts hitherto so much complained of and largely increase the light. The heat and ventilation will then be still more satisfactory than heretofore.

One hundred and twenty volumes have been bound during the year.

The very munificent present of many books of great rarity and value to the Library by William Crawford, of Lakelands, county Cork, esq., has considerably increased our number; and I beg to observe that the space in the Library is altogether inadequate, not only to the annual increase of the books, but to the suitable accommodation of such gifts as we have just received. This defect requires immediate attention.

I am again requested by many gentlemen engaged in historical inquiries to express their gratitude for the privilege accorded them of access to the Library, and many circumstances point favourably to our future.

The series of historical documents published under the direction of the Master of the Rolls, are constantly sought after by literary inquirers; and other works of a similar nature, which, from their great cost and rarity, are, I regret to say, at present apparently beyond our reach.

The General Catalogue of the Library is proceeding most satisfactorily.

RICHARD CAULFIELD, LL.D., *Librarian.*

Appendix C.

No. XIII.—Bursar's Annual Account of the Receipts and Expenditure of Queen's College, Cork.

General Abstract of the Receipts and Expenditure of the College, from 1st April, 1876, to 31st March, 1877.

DR.	£	s.	d.
To Balance on 1st April, 1876—General Account, £747 12 1½			
Library Deposits, 90 0 0	837	12	1½
„ Amounts received from Paymaster-General—			
Endowment (less Income Tax),	6,925	5	8
Special Parliamentary Grant in aid of Professors' Salaries,	343	13	4
Additional Parliamentary Grant for maintenance of the College,	1,600	0	0
„ College Fees and Fines,	70	15	6
„ Professors' Class Fees,	1,699	10	0
„ Library Deposits,	30	0	0
„ Dividend on £1,089 15*s.* 7*d.*, Three Per Cent. Stock,	32	6	11
Miscellaneous,	1	14	0
Total,	£11,540	17	6½

CR.	£	s.	d.
By Amount paid for Salaries—			
President, Professors, and Officers,	4,968	8	11
Scholarships, Prizes, and Exhibitions,	1,193	15	0
Minor Officers, Porters, and Servants,	470	1	0
„ Payments on account of Special Grant,	344	1	5
„ Payments on account of Additional Grant, Fees and Fines,	1,665	9	10½
„ Payments on account of Professors' Class Fees,	1,699	10	0
„ Library Deposits repaid,	33	0	0
„ Balance on 31st March, 1877—			
On General Account, £1,079 11 4			
On Library Deposits, 87 0 0	1,166	11	4
Total,	£11,540	17	6½

In addition to the Cash Balance there is standing to the credit of the College £1,089 15*s.* 7*d.*, Government New Three Per Cent. Stock.

Account of the Expenditure of the Parliamentary Grant of £1,600 for Maintenance of the College, and of the College Fees and Fines for the Year ending 31st March, 1877.

DR.	£	s.	d.
To Amount received from the Paymaster-General,	1,600	0	0
„ „ College Fees and Fines,	70	15	6
Total,	£1,670	15	6

CR.	£	s.	d.
By Amount expended on Library—			
Ancient and Modern Languages, £190 12 0			
Mathematical and Physical Sciences, 46 4 0			
Natural Sciences, 66 14 8			
Engineering, 9 9 0			
Medical Sciences, 89 6 0	506	7	9½
Mental and Legal Sciences, 34 0 0			
General Library, 23 5 6½			
Binding, 46 16 7			
By Amount expended for Apparatus, Diagrams, Materials, Museums—			
Chemical Laboratory, £102 12 1			
Physical Cabinet, 144 11 7			
Engineering Department, 3 5 0			
Physiological Cabinet and other Medical Departments, 214 16 1½	481	11	3½
Museums, 16 6 6			
By Amount expended in Heating and Lighting,	268	12	11½
„ „ Botanic Garden and Grounds,	174	16	9
„ „ Printing, Stationery, Advertising,	109	15	5
„ Miscellaneous Expenditure—			
Travelling Expenses, £5 5 0			
College Fees Repaid, 2 5 0			
Porter's Clothing, 56 4 8			
Water Supply, 11 11 0	124	5	8
Incidentals, 44 0 2½			
Postage, 4 19 9½			
Balance,	5	5	7½
	£1,670	15	6

(Signed), John England, M.A., *Bursar.*

The account of the College for the year ending the 31st of March, 1877, of which the above is an abstract has been signed and passed by the Auditor-General.

APPENDIX D.

No. XIV.

Faculty of Arts.

SESSIONAL EXAMINATIONS—FIRST YEAR.

GREEK.

Examiner—Professor BOULGER.

1. Write out in full the declension of the following:—*μήτηρ, βοῦς, γένος, μείζων.*

2. Give the comparative and superlative nom. singular masc. of the following adjectives:—*σοφός, κοῦφος, γεραιός, σώφρων, αἰσχρός, ῥᾴδιος.*

3. Write out in full the perfect passive of *λύω*, the aorist act. of *τίθημι*, and the imperfect passive of *δείκνυμι.*

4. Give the infinitive, subjunctive, optative, and imperative moods of *οἶδα.*

5. Give the first person singular present indicative of the following forms:—*ἔαγα, πέπταμαι, βεβώς, ἰέναι, ἐθάφθην, ἐτάθην, εἴληχα.*

6. Form *verbal* stems from the following:—*λείπω, πράσσω, φθείρω, καίω, νίζω, τρώγω.*

I. Translate:—

XENOPHON—*Anabasis*, IV., vi., 10–15.

μετὰ τοῦτον Ξενοφῶν εἶπεν, Ἐγὼ δ' οὕτω γιγνώσκω. εἰ μὲν ἀνάγκη ἐστὶ μάχεσθαι, τοῦτο δεῖ παρασκευάσασθαι ὅπως ὡς κράτιστα μαχούμεθα· εἰ δὲ βουλόμεθα ὡς ῥᾷστα ὑπερβάλλειν, τοῦτό μοι δοκεῖ σκεπτέον εἶναι ὅπως ἐλάχιστα μὲν τραύματα λάβωμεν, ὡς ἐλάχιστα δὲ σώματα ἀνδρῶν ἀποβάλωμεν. τὸ μὲν οὖν ὄρος ἐστὶ τὸ ὁρώμενον πλέον ἢ ἐφ' ἑξήκοντα στάδια, ἄνδρες δ' οὐδαμοῦ φυλάττοντες ἡμᾶς φανεροί εἰσιν ἀλλ' ἢ κατ' αὐτὴν τὴν ὁδόν· πολὺ οὖν κρεῖττον τοῦ ἐρήμου ὄρους καὶ κλέψαι τι πειρᾶσθαι λαθόντας καὶ ἁρπάσαι φθάσαντας ἣν δυνώμεθα, μᾶλλον ἢ πρὸς ἰσχυρὰ χωρία καὶ ἄνδρας παρεσκευασμένους μάχεσθαι. πολὺ γὰρ ῥᾷον ὄρθιον ἀμαχεὶ ἰέναι ἢ ὁμαλές, ἔνθεν καὶ ἔνθεν πολεμίων ὄντων, καὶ νύκτωρ ἀμαχεὶ μᾶλλον ἂν τὰ πρὸ ποδῶν ὁρῴη τις ἢ μεθ' ἡμέραν μαχόμενος, καὶ ἡ τραχεῖα τοῖς ποσὶν ἀμαχεὶ ἰοῦσιν εὐμενεστέρα ἢ ἡ ὁμαλὴ τὰς κεφαλὰς βαλλομένοις. καὶ κλέψαι οὐκ ἀδύνατόν μοι δοκεῖ εἶναι, ἐξὸν μὲν νυκτὸς ἰέναι, ὡς μὴ ὁρᾶσθαι, ἐξὸν δὲ ἀπελθεῖν τοσοῦτον ὡς μὴ αἴσθησιν παρέχειν.

II. EURIPIDES—*Hippolytus*, 373–404.

Τροιζήνιαι γυναῖκες, αἳ τόδ' ἔσχατον
οἰκεῖτε χώρας Πελοπίας προνώπιον,
ἤδη ποτ' ἄλλως νυκτὸς ἐν μακρῷ χρόνῳ
θνητῶν ἐφρόντισ' ἡ διέφθαρται βίος.
καὶ μοι δοκοῦσιν οὐ κατὰ γνώμης φύσιν
πράσσειν κάκιον, ἔστι γὰρ τό γ' εὖ φρονεῖν
πολλοῖσιν, ἀλλὰ τῇδ' ἀθρητέον τόδε·
τὰ χρήσ' ἐπιστάμεσθα καὶ γιγνώσκομεν,
οὐκ ἐκπονοῦμεν δ', οἱ μὲν ἀργίας ὕπο,
οἱ δ' ἡδονὴν προθέντες ἀντὶ τοῦ καλοῦ
ἄλλην τιν'. εἰσὶ δ' ἡδοναὶ πολλαὶ βίου,
μακραί τε λέσχαι καὶ σχολή, τερπνὸν κακόν,
αἰδώς τε. δισσαὶ δ' εἰσίν, ἡ μὲν οὐ κακή,
ἡ δ' ἄχθος οἴκων. εἰ δ' ὁ καιρὸς ἦν σαφής,
οὐκ ἂν δύ' ἦστην ταὐτ' ἔχοντε γράμματα.
ταῦτ' οὖν ἐπειδὴ τυγχάνω φρονοῦσ' ἐγώ,
οὐκ ἔσθ' ὁποίῳ φαρμάκῳ διαφθερεῖν
ἔμελλον, ὥστε τοὔμπαλιν πεσεῖν φρενῶν.

Appendix D.

Sessional Examinations.

III. Xenophon—*Cyropædia*, VIII., viii., 1–3.

ὅτι μὲν δὴ καλλίστη καὶ μεγίστη τῶν ἐν τῇ Ἀσίᾳ ἡ Κύρου βασιλεία ἐγένετο, αὐτὴ ἑαυτῇ μαρτυρεῖ. ὡρίσθη μὲν πρὸς ἕω μὲν τῇ Ἐρυθρᾷ θαλάττῃ, πρὸς ἄρκτον δὲ τῷ Εὐξείνῳ πόντῳ, πρὸς ἑσπέραν δὲ Κύπρῳ καὶ Αἰγύπτῳ, πρὸς μεσημβρίαν δὲ Αἰθιοπίᾳ. τοσαύτη δὲ γενομένη μιᾷ γνώμῃ τῇ Κύρου ἐκυβερνᾶτο, καὶ ἐκεῖνός τε τοὺς ὑφ' ἑαυτῷ ὥσπερ ἑαυτοῦ παῖδας ἐτίμα τε καὶ ἐθεράπευεν, οἵ τε ἀρχόμενοι Κῦρον ὡς πατέρα ἐσέβοντο. ἐπεὶ μέντοι Κῦρος ἐτελεύτησεν, εὐθὺς μὲν αὐτοῦ οἱ παῖδες ἐστασίαζον, εὐθὺς δὲ πόλεις καὶ ἔθνη ἀφίσταντο, πάντα δ' ἐπὶ τὸ χεῖρον ἐτρέπετο. ὡς δ' ἀληθῆ λέγω ἄρξομαι διδάσκων ἐκ τῶν θείων. οἶδα γάρ, ὅτι πρότερον μὲν βασιλεὺς καὶ οἱ ὑπ' αὐτῷ καὶ τοῖς τὰ ἔσχατα πεποιηκόσιν εἴτε ὅρκους ὀμόσαιεν, ἠμπέδουν, εἴτε δεξιὰς δοῖεν, ἐβεβαίουν. εἰ δὲ μὴ τοιοῦτοι ἦσαν καὶ τοιαύτην δόξαν εἶχον, ὥσπερ οὐδὲ νῦν πιστεύει οὐδὲ εἷς ἔτι, ἐπεὶ ἔγνωσται ἡ ἀσέβεια αὐτῶν, οὕτως οὐδὲ τότε ἐπίστευσαν ἂν οἱ τῶν σὺν Κύρῳ ἀναβάντων στρατηγοί.

IV. Parse all words marked with an obelus (†) in the above.

Latin.

Examiner, Professor Lewis.

Translate :—

(A.) Horace—*Epistles*, I., xviii., 96–110.

Inter cuncta leges et percontabere doctos,
Qua ratione queas traducere leniter aevum,
Ne te semper inops agitet vexetque cupido,
Ne pavor et rerum mediocriter utilium spes,
Virtutem doctrina paret naturane donet,
Quid minuat curas, quid te tibi reddat amicum,
Quid pure tranquillet, honos an dulce lucellum,
An secretum iter et fallentis semita vitae.
Me quoties reficit gelidus Digentia rivus,
Quem Mandela bibit, rugosus frigore pagus,
Quid sentire putas? quid credis, amice, precari?
Sit mihi, quod nunc est, etiam minus, et mihi vivam
Quod superest aevi, si quid superesse volunt di;
Sit bona librorum et provisae frugis in annum
Copia, neu fluitem dubiae spe pendulus horae!

(B.) Cicero—*Tusculan Disputations*, ii., 5.

A. Nonne verendum est igitur, si est ita, ut dicis, ne philosophiam falsa gloria exornes? Quod est enim maius argumentum nihil eam prodesse quam quosdam perfectos philosophos turpiter vivere?

M. Nullum vero id quidem argumentum est. Nam ut agri non omnes frugiferi sunt, qui coluntur, falsumque illud Accii :

Probae etsi in segetem sunt deteriorem datae
Fruges, tamen ipsae suapte natura enitent,

sic animi non omnes culti fructum ferunt. Atque, ut in eodem simili verser, ut ager quamvis fertilis sine cultura fructuosus esse non potest, sic sine doctrina animus. Ita est utraque res sine altera debilis. Cultura autem animi philosophia est : haec extrahit vitia radicitus et praeparat animos ad satus accipiendos eaque mandat iis et, ut ita dicam, serit, quae adulta fructus uberrimos ferant.

1. Describe accurately the situation of Utica, Ilerda, Velia, Brundisium, Gabii, and Colophon.

2. Derive the words oppidum, asylum, hortus, primus, stella, and fovea.

3. Write the life of Maecenas, and quote some passages in which Horace mentions him.
4. When did Cicero compose his Tusculan Disputations?
5. Give some account of the tenets of the Stoic school of philosophy.
6. Explain the metre of the extract from Accius (B).

Translate into Latin :—

He published an edict, that the senate should return to its usual dress.
He had charged Trebonius by letter not to suffer Marseilles to be taken by storm.
His perseverance is as great as his fury.
The senate decrees, that the consuls should levy troops.
He persuades him to return to his mother.
He demands, that troops should be levied.

Translate into Latin elegiacs :—

Soon when the golden bulla has been dismissed from thy inexperienced neck,
And the free toga has been taken before the gods of thy mother,
Then to thee Apollo utters a few words from his roof,
And forbids to thunder words in the mad forum.
Not so am I placed, nor the times such to me,
That I may be able to be glad at thy arrival.

The English Language.

Examiner, Professor Armstrong.

1. Give an account of the origin, character, and habits of the earliest Teutonic conquerors of Britain.
2. Describe the characteristics of the language of these people, pointing out the features which distinguish it from the Literary English of the present day.
3. Show that modern English and "Anglo-Saxon" are not distinct languages, but one and the same.
4. Explain, and illustrate in tabular form, the relationships of the English language.
5. Give examples of words in Modern English of Keltic, Latin, Greek, and Scandinavian origin, and account for their appearance in our vocabulary.
6. Write a note on the Romance languages, explaining their origin, and giving a particular account of that Romance dialect which has exercised the most important influence upon the English language.
7. Trace as well as you can the development of the East Midland dialect, and explain the causes which have led to its adoption as the literary dialect of England.
8. Paraphase the following passage in Modern English prose; and make a metrical analysis of it, pointing out and explaining all its grammatical peculiarities :—

"For him was lever have at his beddes heede
Twenty bookes, clad in blak o reede,
Of Aristotle, and his philosophie,
Than robes riche, or fithel, or sawtrie.
But al be that he was a philosophre,
Yet hadde he but litel gold in cofre;

Appendix D

Sessional Examinations.

But al that he might of his frendes hente,
On bookes and on lernyng he it spente,
And busily gan for the soules preye
Of hem that yaf him wherwith to scoleye."

9. Describe the characteristics of Beówulf and explain the system of "Anglo-Saxon" versification.

10. Give a brief sketch of the literary history of England prior to the Norman Conquest.

11. Write a note on the Norman Romances of Chivalry.

12. Write a brief sketch of Chaucer's life; and give some details respecting the life and works of Baccaccio, and the nature of his influence upon Chaucer.

Modern Languages.

Examiner, Professor De Vericour.

N.B.—The following Paper was common to Students in Arts, Engineering, and Medicine of First Year's standing.

Translate into French :—

1. Louis XIV. was born on the 5th of September, 1638. He was only five years old when he was called to the throne, after the death of Louis XIII., his father. His reign was the longest of the French monarchy, and lasted seventy-two years. During the minority of Louis, Anne of Austria, his mother, was regent, and governed France with Cardinal Mazarin, who became prime minister. The first five years of his minority were remarkable for four great victories, Rocroi, Fribourg, Nordlingue, and Lens, gained by the young Duke of Enghien, called afterwards the Great Condé. Louis XIV. was twenty-two years old when he began to reign by himself, after the death of Mazarin.

2. The extensive country of which La Vendée is the centre, comprehends a much larger space than properly bears that name, as it includes a considerable portion of the departments of Maine and Loire, of Loire Inférieure, and of Les deux Sèvres, as well as La Vendée proper. The soil is not fit for the plough, but admirably adapted for the raising of cattle, and lies divided into pastures of small extent, but very rich in produce, which are scattered among groves and forests, so extensive that the whole district is known by the name of Bocage, or Thicket. The peasants inhabited each his little separate farm, all were easy and independent, and none possessed overgrown wealth. They were little oppressed by the public burdens, having a dispensation from the heaviest, on condition of their maintaining the various cuts and canals by which their country is drained. These canals, joined to the extreme badness of the roads, the intervention of numerous hedges and thickets, and the frequent rains, render La Vendée very inaccessible unless to the natives, who, familiar with these difficulties, are accustomed to bound over the obstacles, by means of a pole or quarter-staff, guarded with iron, which they are wont to carry, and which, in the course of the war, they sometimes used as a formidable weapon.—Sir Walter Scott.

1. State the general rule for the use of the tenses of the subjunctive.
2. Say what *on* and *y* are used for. Give examples.
3. Explain the various idiomatic uses of *on*.
4. How are the pronouns *whoever*, *whosoever*, *whatever*, translated?
5. Who were the *Trouvères* and the *Troubadours*?
6. State what you know of the life and works of one of the following authors :—Corneille, Molière, Bossuet, Madame de Sevigné.

MATHEMATICS.

Examiner, Professor NIVEN.

LOWER PAPER.

N.B.—This and the following "Higher Paper" were common to First Year's Students in Arts and Engineering.

1. If two triangles have two sides of one equal to two sides of the other, each to each, but the included angle of one greater than the included angle of the other; prove that that which has the greater angle will have the greater third side.

If the two triangles be ABC, ABC′ of which the angle BAC is greater than BAC′, and if the same circle goes through the points ABC′C, prove that the angle BAC′ is equal to the difference of the angles ABC, ACB.

2. The square on the hypothenuse of a right-angled triangle is equal to the sum of the squares on its sides.

3. If two circles intersect the straight line joining their centres bisects the common chord at right angles.

What theorem relating to tangents may be derived from this result?

4. Of two unequal chords of a circle the greater is that which is nearer to the centre.

5. Similar triangles are in the duplicate ratio of their homologous sides.

The areas of a regular hexagon inscribed in a circle and regular hexagon circumscribed about it have to each other the ratio 3 : 4.

6. Prove that—

$$(a^2+ab+b^2)(a^2-ab+b^2)(a^4-a^2b^2+b^4)=a^8+a^4b^4+b^8;$$

also divide

$$x^3+\frac{1}{x^3}-2 \text{ by } x^2+\frac{1}{x^2}-x-\frac{1}{x},$$

and factorise

$$(a-b)^4-16a^2b^2.$$

7. Define a fraction, and prove the rule for the multiplication of fractions.

Reduce to their simplest forms the following fractions:—

$$(1)\ \frac{2x^3-x^2-x-3}{2x^3+x^2-2x-6}, \quad (2)\ \frac{1}{x+1-\dfrac{4}{3+\dfrac{x-1}{x+1}}},$$

$$(3)\ \frac{1}{(a+b)^2}+\frac{1}{(a-b)^2}+\frac{1}{2(a-b)}+\frac{1}{2(a+b)}.$$

8. Solve the equations—

$$(1)\ \frac{2x+1}{x-2}-\frac{x+2}{x-1}=1.$$

$$(2)\ 3x+\sqrt{6x-2}=8\tfrac{1}{2}.$$

$$(3)\ \frac{1}{x}-\frac{2}{y}=2, \quad 5x-3y=3.$$

9. Define ratio and proportion, and prove that

if $a:b::c:d$ then $a+b:a-b::c+d:c-d$.

If $a:b::c:d::e:f$, prove that

$$ac-e^2:bd-f^2::(a+c+e)^2:(b+d+f)^2.$$

10. Find the sum of n quantities in arithmetic progression.

Appendix D. Sessional Examinations.

Sum the series—

$$\frac{1}{3} + 2 + 3\frac{2}{3} + \ldots.$$

$$n + \frac{1}{n} + \frac{2-n^2}{n} + \ldots.$$

to 8 terms and to n terms.

11. How is the present value of an annuity found? Find the present value of a perpetual annuity of £100 a year payable quarterly, reckoning interest at 3 per cent.

12. Define the trigonometrical functions, and find the sine in terms of the secant.

Find the tangents of 30°, 45°, 150°, 660°.

13. Prove the formulæ :—

$$\sin(180° - A) = \sin A,$$

$$2 \sin A \sin B = \cos \overline{A - B} - \cos \overline{A + B},$$

$$\operatorname{cosec} 2A - \cot 4A = \tan A + \operatorname{cosec} 4A.$$

14. Investigate formulæ (adapted to logarithmic computation), for finding the angles of a triangle in terms of the sides.

The perpendiculars from the angles of a triangle ABC on the opposite sides meet in P, prove that AP+BP+CP=2(R+r) where R and r are the radii of the circumscribing and inscribed circles of the triangle.

HIGHER PAPER.

1. If one transversal cut a pencil of four rays in a harmonic range every transversal must do so.

2. The lines drawn through the angles of a triangle ABC parallel to the opposite sides intersect in points A′B′C′ which lie on the lines through the angles ABC, bisecting the opposite sides ; prove this and show that no other triangle can be circumscribed to ABC having its angles on these lines.

3. Prove that the sum of the series—

$$\frac{a}{a+x} + \frac{2a^2}{a^2+x^2} + \frac{4a^4}{a^4+x^4} + \ldots \text{to } n \text{ terms} = \frac{ma^m}{a^m - x^m} - \frac{a}{a-x}, \text{ where } m = 2^{n+1}.$$

4. State and prove the rule for reducing a determinant.

Prove that—

$$\begin{vmatrix} \tan a & \cot a & \cot a \\ \cot a & \tan a & \cot a \\ \cot a & \cot a & \tan a \end{vmatrix} = \frac{8\cos^2 2a}{\sin^3 2a} \cdot (1 + \cos^2 a),$$

and solve the equations—

$$\left.\begin{aligned} x + y - z &= a \\ y + z - u &= b \\ z + u - x &= c \\ u + x - y &= d \end{aligned}\right\}.$$

5. Assuming the binominal theorem true for a positive integral index prove it true generally.

Expand $(1-2x)^{\frac{7}{2}}$, finding the general term and the greatest term when $x = \frac{1}{4}$.

6. Assuming the expansion of e^x, deduce the multinomial theorem when the index is a positive whole number.

Find the coefficient of x^5 in $(1 - 2x + 3x^2)^{-3}$.

7. Sum the series—

$$1^2 . 2 + 2^2 . 3 + 3^2 . 4 + \ldots$$

$$1 . 2 . 6 + 2 . 3 . 7 + 3 . 4 . 8 + \ldots$$

to n terms.

8. Given $\sin A$, find $\sin \frac{A}{2}$.

Prove that—

$$\sin \overline{\alpha-\beta} \cdot \sin \overline{\beta+2\gamma} + \sin \overline{\beta-\gamma} \sin \overline{\alpha+\beta+\gamma} + \sin \overline{\gamma-\alpha} \sin \overline{\gamma+2\beta} = 0.$$

9. Given—

$$2 \sin \alpha \cos \overline{\theta+\phi} = 2 \cos \overline{\theta-\phi} + \cos^2 \alpha$$

and

$$2 \sin \alpha \cos \overline{\theta+\psi} = 2 \cos \overline{\theta-\psi} + \cos^2 \alpha,$$

prove that

$$2 \sin \alpha \cos \overline{\phi+\psi} = 2 \cos \overline{\phi-\psi} + \cos^2 \alpha.$$

10. Find an expression for the radius of the inscribed circle of a triangle.

A tower which leans towards the south is observed from three points equally distant from its base to the north, east, and south of the tower, and the elevations of its top are found to be α, β, γ; prove that $\cot^2\alpha$, $\cot^2\beta$, $\cot^2\gamma$ are in arithmetical progression.

11. Find an expression for the area of a segment of a circle.

A string equal in length to the perimeter of an equilateral triangle is attached at an angle and is first wound round the triangle; it is then unwound completely and kept in motion till it is rewound again, being kept tight all the time; find the area which it sweeps through.

SECOND YEAR.

GREEK.

Examiner, Professor BOULGER.

1. What phonetic laws are illustrated by the following forms:—*λεκτός, κομμός, δαίμοσι, θάπτω, ῥέζω, μᾶλλον, τμῆσις, ἕξ, Βάκχος, λελυκνῖα, πέφαγκα.*

2. Give five substantives which reject the final consonant of the stem in certain forms.

3. Give the verbal stem for each of the following forms:—*εἰμί, εἶμι, ἵημι, λείπω, κράζω, βαίνω, πίπτω.*

4. Give examples of the Doric future and of Attic reduplication. Distinguish *ἀνέψγα* from *ἀνέῳχα*. Give the fut. and perfect (active) of *χέω*.

5. Point out grammatical peculiarities in the following passages:—

(*α.*) *ὅτι τοίνον καὶ κεκόμισται χάριν, ὦ ἄνδρες Ἀθηναῖοι, παρ' ὑμῶν, οὐ μόνον ὧν αὐτὸς λελειτούργηκε λειτουργιῶν ἀξίαν—μικρὰ γὰρ αὕτη γέ τις ἦν —ἀλλὰ καὶ τῶν μεγίστων, καὶ τοῦτο βούλομαι δεῖξαι.*

(*β.*) *Ἔρως Ἔρως ὃ κατ' ὀμμάτων*
στάζεις πόθον.

(*γ.*) *Ζεύς σ' ὁ γεννήτωρ ἐμός*
πρόρριζον ἐκτρίψειεν.

(*δ.*) *θόρυβον καὶ κρότον τοιοῦτον ὡς ἂν ἐπαινοῦντες τε καὶ συνησθέντες ἐποιήσατε.*

(*ε.*) *ἃ δ' ἂν ἐκ πολλοῦ συνεχῶς ἐπὶ πολλὰς ἡμέρας πράττων τις φωρᾶται οὐ μόνον δήπου τοῦ μὴ μετ' ὀργῆς ἀπέχει, ἀλλὰ καὶ βεβουλευμένως ὁ τοιοῦτος ὑβρίζων ἐστὶν ἤδη φανερός.*

1. Translate:—

ὣς ἄρα οἱ φρονέοντι δοάσσατο κέρδιον εἶναι·
βῆ ῥ' ἴμεν εἰς ὕλην· τὴν δὲ σχεδὸν ὕδατος εὗρεν
ἐν περιφαινομένῳ· δοιοὺς δ' ἄρ' ὑπήλυθε θάμνους,
ἐξ ὁμόθεν πεφυῶτας· ὁ μὲν φυλίης, ὁ δ' ἐλαίης.

Appendix D.

Sessional Examinations.

τοὺς μὲν ἄρ' οὔτ' ἀνέμων διάει μένος ὑγρὸν ἀέντων,
οὐδέ ποτ' ἠέλιος φαέθων ἀκτῖσιν ἔβαλλεν,
οὔτ' ὄμβρος περάασκε διαμπερές· ὣς ἄρα πυκνοὶ
ἀλλήλοισιν ἔφυν ἐπαμοιβαδίς· οὓς ὑπ' Ὀδυσσεὺς
δύσετ'· ἄφαρ δ' εὐνὴν ἐπαμήσατο χερσὶ φίλῃσιν
εὐρεῖαν· φύλλων γὰρ ἔην χύσις ἤλιθα πολλή,
ὅσσον τ' ἠὲ δύω ἠὲ τρεῖς ἄνδρας ἔρυσθαι
ὥρῃ χειμερίῃ, εἰ καὶ μάλα περ χαλεπαίνοι.
τὴν μὲν ἰδὼν γήθησε πολύτλας δῖος Ὀδυσσεύς,
ἐν δ' ἄρα μέσσῃ λέκτο, χύσιν δ' ἐπεχεύατα φύλλων.
ὡς δ' ὅτε τις δαλὸν σποδιῇ ἐνέκρυψε μελαίνῃ
ἀγροῦ ἐπ' ἐσχατιῆς, ᾧ μὴ πάρα γείτονες ἄλλοι,
σπέρμα πυρὸς σώζων, ἵνα μή ποθεν ἄλλοθεν αὖῃ,
ὣς Ὀδυσεὺς φύλλοισι καλύψατο· τῷ δ' ἄρ' Ἀθήνη
ὕπνον ἐπ' ὄμμασι χεῦ', ἵνα μιν παύσειε τάχιστα
δυσπονέος καμάτοιο, φίλα βλέφαρ' ἀμφικαλύψας.

Odyssey, V., 474–493.

2. Translate and explain the following passages :—

(*a.*) θύρην δ' ἐπέρυσσε κορώνῃ
ἀργυρέῃ, ἐπὶ δὲ κλεῖδ' ἐτάνυσσεν ἱμάντι.

Ibid., I., 441, 442.

(*b.*) Μέντορ ἀταρτηρὲ, φρένας ἠλεὲ, ποῖον ἔειπες
ἠμέας ὀτρύνων καταπανέμεν. ἀργαλέον δὲ
ἀνδράσι καὶ πλεόνεσσι μαχήσασθαι περὶ δαιτί.

Ibid., II., 243–245.

(*c.*) ὅσσον τίς τ' ἔδαφος νηὸς τορνώσεται ἀνὴρ
φορτίδος εὐρείης, εὖ εἰδὼς τεκτοσυνάων,
τόσσον ἔπ' εὐρεῖαν σχεδίην ποιήσατ' Ὀδυσσεύς.
ἴκρια δὲ στήσας, ἀραρὼν θαμέσι σταμίνεσσιν,
ποίει· ἀτὰρ μακρῇσιν ἐπηγκενίδεσσι τελεύτα.
ἐν δ' ἱστὸν ποίει καὶ ἐπίκριον ἄρμενον αὐτῷ·
πρὸς δ' ἄρα πηδάλιον ποιήσατο, ὄφρ' ἰθύνοι.
φράξε δέ μιν ῥίπεσσι διαμπερὲς οἰσυΐνῃσιν
κύματος εἶλαρ ἔμεν· πολλὴν δ' ἐπεχεύατο ὕλην.

Ibid., V., 249–257.

(*d.*) λεπτὴ δ' εἰσίθμη· νῆες δ' ὀδὸν ἀμφιέλισσαι
εἰρύαται· πᾶσιν γὰρ ἐπίστιόν ἐστιν ἑκάστῳ.

Ibid., VI., 264, 265.

3. Translate :—

ΤΡ. τί τόδ' αὖ παράφρων ἔρριψας ἔπος;
νῦν δὴ μὲν ὄρος βᾶσ' ἐπὶ θήρας
πόθον ἐστέλλου, νῦν δ' αὖ ψαμάθοις
ἐπ' ἀκυμάντοις πώλων ἔρασαι.
τάδε μαντείας ἄξια πολλῆς,
ὅστις σε θεῶν ἀνασειράζει
καὶ παρακόπτει φρένας, ὦ παῖ.

ΦΑΙ. δύστανος ἐγώ, τί ποτ' εἰργασάμην;
ποῖ παρεπλάγχθην γνώμης ἀγαθῆς;
ἐμάνην, ἔπεσον δαίμονος ἄτᾳ.
φεῦ φεῦ, τλήμων.
μαῖα, πάλιν μου κρύψον κεφαλάν·
αἰδούμεθα γὰρ τὰ λελεγμένα μοι.

κρύπτε· κατ' ὄσσων δάκρυ μοι βαίνει,
καὶ ἐπ' αἰσχύνην ὄμμα τέτραπται.
τὸ γὰρ ὀρθοῦσθαι γνώμην ὀδυνᾷ,
τὸ δὲ μαινόμενον κακόν· ἀλλὰ κρατεῖ
μὴ γιγνώσκοντ' ἀπολέσθαι.

ΤΡ. κρύπτω· τὸ δ' ἐμὸν πότε δὴ θάνατος
σῶμα καλύψει;
πολλὰ διδάσκει μ' ὁ πολὺς βίοτος.
χρῆν γὰρ μετρίας εἰς ἀλλήλους
φιλίας θνητοὺς ἀνακίρνασθαι,
καὶ μὴ πρὸς ἄκρον μυελὸν ψυχῆς,
εὔλυτα δ' εἶναι στέργηθρα φρενῶν
ἀπό τ' ὦσασθαι καὶ ξυντεῖναι.
τὸ δ' ὑπὲρ δισσῶν μίαν ὠδίνειν
ψυχὴν χαλεπὸν βάρος, ὡς κἀγὼ
τῆσδ' ὑπεραλγῶ.

EURIPIDES—*Hippolytus*, 232–260.

4. Explain the construction of the following passages:—

(*a.*) ὅστις διδακτὸν μηδέν, ἀλλ' ἐν τῇ φύσει
τὸ σωφρονεῖν εἴληχεν εἰς τὰ πάνθ' ὁμῶς.

Ibid., 79, 80.

(*b.*) οὐδὲ στέγην γὰρ ἧς κατηρεφεῖς δόμοι
καλῶς ἀκριβώσειαν.

Ibid., 468, 469.

(*c.*) οὔτε γὰρ πυρὸς οὔτ'
ἄστρων ὑπέρτερον βέλος,
οἷον τὸ τᾶς Ἀφροδίτας
ἵησιν ἐκ χερῶν
Ἔρως ὁ Διὸς παῖς.

Ibid., 530–534.

(*d.*) ἐμοὶ μὲν οὖν
ἀβίοτος βίου τύχα πρὸς τὸ κρανθὲν εἴη τυχεῖν.

Ibid., 867, 868.

I. Translate:—

DEMOSTHENES—*In Midiam.*

εἰ τοίνυν τις ὑμῶν, ὦ ἄνδρες Ἀθηναῖοι, ἄλλως πως ἔχει τὴν ὀργὴν ἐπὶ Μειδίαν ἢ ὡς οὐ δέον αὐτὸν τεθνάναι, οὐκ ὀρθῶς ἔχει. οὐ γάρ ἐστι δίκαιον οὐδὲ προσῆκον τὴν τοῦ παθόντος εὐλάβειαν τῷ μηδὲν ὑποστειλαμένῳ πρὸς ὕβριν μερίδα εἰς σωτηρίαν ὑπάρχειν, ἀλλὰ τὸν μὲν ὡς ἁπάντων τῶν ἀνηκέστων αἴτιον κολάζειν προσήκει, τῷ δ' ἐπὶ τοῦ βοηθεῖν ἀποδιδόναι τὴν χάριν. οὐδὲ γὰρ αὖ τοῦτ' ἔστιν εἰπεῖν, ὡς οὐ γεγενημένου πώποτ' οὐδενὸς ἐκ τῶν τοιούτων δεινοῦ τῷ λόγῳ τὸ πρᾶγμ' ἐγὼ νῦν αἴρω καὶ φοβερὸν ποιῶ. πολλοῦ γε καὶ δεῖ. ἀλλ' ἴσασιν ἅπαντες, εἰ δὲ μή, πολλοί γε, Εὔθυνον τὸν παλαίσαντά ποτ' ἐκεῖνον, τὸν νεανίσκον, Σώφιλον τὸν παγκρατιαστήν (ἰσχυρός τις ἦν, μέλας, εὖ οἶδ' ὅτι γιγνώσκουσί τινες ὑμῶν ὃν λέγω), τοῦτον ἐν Σάμῳ ἐν συνουσίᾳ τινὶ καὶ διατριβῇ οὕτως ἰδίᾳ, ὅτι τύπτων αὐτὸν ὑβρίζειν ᾤετο, ἀμυνάμενον οὕτως ὥστε καὶ ἀποκτεῖναι. ἴσασιν Εὐαίωνα πολλοὶ τὸν Λεωδάμαντος ἀδελφὸν ἀποκτείναντα Βοιωτὸν ἐν δείπνῳ καὶ συνόδῳ κοινῇ διὰ πληγὴν μίαν. οὐ γὰρ ἡ πληγὴ παρέστησε τὴν ὀργήν, ἀλλ' ἡ ἀτιμία· οὐδὲ τὸ τύπτεσθαι τοῖς ἐλευθέροις ἐστὶ δεινόν, καίπερ ὂν δεινόν, ἀλλὰ τὸ ἐφ' ὕβρει. πολλὰ γὰρ ἂν ποιήσειεν ὁ τύπτων, ὦ ἄνδρες Ἀθηναῖοι, ὧν ὁ παθὼν ἕνια οὐδ' ἂν ἀπαγγεῖλαι δύναιθ' ἑτέρῳ, τῷ σχήματι, τῷ βλέμματι, τῇ φωνῇ, ὅταν ὡς ὑβρίζων, ὅταν ὡς ἐχθρὸς ὑπάρχων, ὅταν κονδύλοις, ὅταν ἐπὶ κόρρης. ταῦτα κινεῖ, ταῦτ' ἐξίστησιν ἀνθρώπους αὐτῶν, ἀήθεις ὄντας τοῦ προπηλακίζεσθαι. οὐδεὶς ἂν, ὦ ἄνδρες Ἀθηναῖοι, ταῦτ' ἀπαγγέλλων δύναιτο τὸ δεινὸν παραστῆσαι τοῖς ἀκούουσιν οὕτως, ὡς ἐπὶ τῆς ἀληθείας καὶ τοῦ πράγματος τῷ πάσχοντι καὶ τοῖς ὀρῶσιν ἐναργὴς ἡ ὕβρις φαίνεται.

Appendix D.

Sessional Examinations.

II. Demosthenes—*De Falsa Legatione.*

νόσημα γάρ, ὦ ἄνδρες Ἀθηναῖοι, δεινὸν ἐμπέπτωκεν εἰς τὴν Ἑλλάδα, καὶ χαλεπὸν καὶ πολλῆς τινὸς εὐτυχίας καὶ παρ' ὑμῶν ἐπιμελείας δέομενον. οἱ γὰρ ἐν ταῖς πόλεσι γνωριμώτατοι καὶ προεστάναι τῶν κοινῶν ἀξιούμενοι, τὴν αὐτῶν προδιδόντες ἐλευθερίαν οἱ δυστυχεῖς, αὐθαίρετον αὑτοῖς ἐπάγονται δουλείαν, Φιλίππῳ ξενίαν καὶ ἑταιρίαν καὶ φιλίαν καὶ τοιαῦθ' ὑποκοριζόμενοι· οἱ δὲ λοιποὶ καὶ τὰ κύρι' ἄττα ποτ' ἐστὶν ἐν ἑκάστῃ τῶν πόλεων, οὓς ἔδει τούτους κολάζειν καὶ παραχρῆμα ἀποκτιννύναι, τοσοῦτ ἀπέχουσι τοῦ τοιοῦτόν τι ποιεῖν ὥστε θαυμάζουσι καὶ ζηλοῦσι καὶ βούλοιντ' ἂν αὐτὸς ἕκαστος τοιοῦτος εἶναι. καίτοι τοῦτο τὸ πρᾶγμα καὶ τὰ τοιαῦτα ζηλώματα Θετταλῶν μέν, ὦ ἄνδρες Ἀθηναῖοι, μέχρι μὲν ἐχθὲς ἦ πρώην τὴν ἡγεμονίαν καὶ τὸ κοινὸν ἀξίωμα ἀπολωλέκει, νῦν δ' ἤδη καὶ τὴν ἐλευθερίαν παραιρεῖται· τὰς γὰρ ἀκροπόλεις αὐτῶν ἐνίων Μακεδόνες φρουροῦσιν· εἰς Πελοπόννησον δ' εἰσελθὸν τὰς ἐν Ἠλιδι σφαγὰς πεποίηκε, καὶ τοσαύτης παρανοίας καὶ μανίας ἐνέπλησε τοὺς ταλαιπώρους ἐκείνους ὥσθ', ἵν' ἀλλήλων ἄρχωσι καὶ Φιλίππῳ χαρίζωνται, συγγενεῖς αὐτῶν καὶ πολίτας μιαιφονεῖν. καὶ οὐδ' ἐνταῦθ' ἔστηκεν, ἀλλ' εἰς Ἀρκαδίαν εἰσελθὸν πάντ' ἄνω καὶ κάτω τἀκεῖ πεποίηκε, καὶ νῦν Ἀρκάδων πολλοὶ προσῆκον αὐτοῖς ἐπ' ἐλευθερίᾳ μέγιστον φρονεῖν ὁμοίως ὑμῖν (μόνοι γὰρ πάντων αὐτόχθονες ὑμεῖς ἐστε κἀκεῖνοι) Φίλιππον θαυμάζουσι καὶ χαλκοῦν ἱστᾶσι καὶ στεφανοῦσι, καὶ τὸ τελευταῖον, ἂν εἰς Πελοπόννησον ἔλθῃ, δέχεσθαι ταῖς πόλεσιν εἰσὶν ἐψηφισμένοι.

III. Write a short essay on the political condition of Greece at the accession of Philip to the throne of Macedon.

Translate into Greek—

1. They are too young to know what fathers they have lost.
2. I congratulate you on your disposition.
3. They asked the Thebans for money.
4. I did not know where to turn.
5. Athenians and allies, there is still room for hope. Before now men have escaped from greater dangers than these. You have not yourselves to blame for your reverses, or your present undeserved afflictions, so that our hopes for the future are encouraging, though our present sufferings dispirit us. When you look upon yourselves, and consider the great army that you are, you should not be dismayed. Remember that wherever you settle you at once make a city, for a city consists of living men and not merely of brick and stone.
6. Render into Iambic trimeter the following :—

> For thee, O Queen, I decked with care, and bring
> This woven garland from a virgin mead,
> Where neither shepherd dares to feed his flocks,
> Nor ever scythe has swept, but through the mead
> Unshorn the bee in spring-time wings her way.

Latin.

Examiner—Professor Lewis.

Translate :—

Cicero—*Tusculan Disputations*, iii., 8.

Veri etiam simile illud est, qui sit temperans, quem Graeci *σώφρονα* appellant eamque virtutem *σωφροσύνην* vocant, quam soleo equidem tum temperantiam, tum moderationem appellare, non numquam etiam modestiam, sed haud scio an recte ea virtus frugalitas appellari possit, quod angustius apud Graecos valet, qui frugi homines *χρησίμους* appellant, id est, tantum modo utiles : at illud est latius : omnis enim abstinentia,

omnis innocentia—quae apud Graecos usitatum nomen nullum habet, sed habere potest ἀβλάβειαν: nam est innocentia adfectio talis animi, quae noceat nemini—reliquas etiam virtutes frugalitas continet. Quae nisi tanta esset et si iis angustiis, quibus plerique putant, teneretur, numquam esset L. Pisonis cognomen tanto opere laudatum. Sed quia nec qui propter metum praesidium reliquit, quod est ignaviae, nec qui propter avaritiam clam depositum non reddidit, quod est iniustitiae, nec qui propter temeritatem male rem gessit, quod est stultitiae, frugi appellari solet, eo tris virtutes, fortitudinem, iustitiam, prudentiam, frugalitas complexa est—etsi hoc quidem commune est virtutum: omnes enim inter se nexae et iugatae sunt:—reliqua igitur est, quarta virtus ut sit, ipsa frugalitas.

TERENCE—*Phormio*, Act I., sc. iv., 26.

An. Non sum apud me. *Ge.* Atqui opus est nunc quom maxume ut sis, Antipho:
Nam si senserit te timidum pater esse, arbitrabitur
Commeruisse culpam. *Ph.* Hoc uerumst. *An.* Non possum immutarier.
Ge. Quid faceres, si aliud quid grauius tibi nunc faciundum foret?
An. Quom hoc non possum, illud minus possem. *Ge.* Hoc nil est, Phaedria: ilicet.
Quid hic conterimus operam frustra? quin abeo? *Ph.* Et quidem ego? *An.* Obsecro,
Quid si adsimulo, satin est? *Ge.* Garris. *An.* Voltum contemplamini: en,
Satine sic est? *Ge.* Non. *An.* Quid si sic? *Ge.* Propemodum. *An.* Quid sic? *Ge.* Sat est:
Em, istuc serua: et uerbum uerbo, par pari ut respondeas,
Ne te iratus suis saeuidicis dictis protelet. *An.* Scio.
Ge. Vi coactum te esse inuitum, lege, iudicio: tenes?
Sed quis hic est senex, quem uideo in ultima platea? *An.* Ipsus est.
Non possum adesse. *Ge.* Ah quid agis? quo abis, Antipho?
Mane, mane inquam. *An.* Ego me noui et peccatum meum:
Vobis commendo Phanium et uitam meam.

1. How did the ancient artists represent Æsculapius?
2. Give an account of the life and opinions of Anaxagoras.
3. Quote some of the verses in the third book of the Tusculan Disputations, and explain the metres.
4. Write the life of Terence. From what sources do we derive our information on this subject?
5. Explain the derivation of pistrinum, platea, pauxillulum, Epidicazomenos, instigo, and simultas.
6. Show that many Latin words were contracted in pronunciation, and confirm your statements by references to modern languages.

Translate into Latin:—

The more difficult it is to acquire a knowledge of heavenly things, the more do they kindle in us the desire of knowing them.

It is one thing to be unanimously acquitted, another to escape by a sentence purchased by bribery.

Do you then believe that the mind is strengthened by pleasure and weakened by continence?

Arms must be resisted by arms.

Is it then true that one poet always envies another?

Appendix D.

Sessional Examinations.

I. by Hercules had rather be condemned than acquitted by a sentence purchased by bribery.

Translate into Latin sapphics :—

Suns set and return, the moon wanes and repairs its form by a fixed law, the stars which the rising sun put to flight with his light,

Night brings back. The colds of severe winter kill with no true death the herbs and various flowers, as many as the loosened earth pours forth from her bosom.

The milder Zephyrus breathing will call all things into flower: Zephyrus calling, the renewed grace of the beautiful spring will clothe the fields.

Translate into Latin elegiacs :—

At summer eve, when Heaven's ethereal bow
Spans with bright arch the glittering hills below,
Why to yon mountains turns the musing eye,
Whose sunbright summit mingles with the sky?
Why do those cliffs of shadowy tint appear
More sweet than all the landscape smiling near?—
'Tis distance lends enchantment to the view,
And robes the mountain in its azure hue.

Translate into Latin prose :—

But among all the different ways of giving counsel I think the finest, and that which pleases the most universally, is fable, in whatsoever shape it appears. If we consider this way of instructing or giving advice, it excels all others, because it is the least shocking, and the least subject to those exceptions which I have before mentioned.

This will appear to us, if we reflect in the first place, that upon the reading of a fable we are made to believe we advise ourselves. We peruse the author for the sake of the story, and consider the precepts rather as our own conclusions than his instructions. The moral insinuates itself imperceptibly, we are taught by surprise, and become wiser and better unawares.

Mathematics.

Examiner, Professor Niven.

1. Investigate an expression for the surface of a sphere in terms of its radius.

2. Given the sides of a spherical triangle, find expressions to determine its angles.

A pyramid stands on a square base and has for its faces isosceles triangles of given form, determine the inclinations of its faces.

3. State Napier's rules for solving right-angled spherical triangles, and prove directly from the figure that $\cos c = \cos a \cdot \cos b$.

If A′ be the pole of the side BC of a triangle ABC, prove that $\cot AA'C = \cot b \sec C$.

4. Prove, in any way, that $2\cos x = e^{x\sqrt{-1}} + e^{-x\sqrt{-1}}$.

Find the real part of the expression $\left\{\cos\left(\frac{\pi}{3} + \sqrt{-1}\right)\right\}$.

5. What are the co-ordinates of a point? Investigate what is represented geometrically by an equation of the form $y = mx + c$.

Construct the loci of the equations—

$$2x-y+3=0,$$

$$2=r\cos\left(\theta+\frac{\pi}{3}\right),$$

$$(x-y)^2+(x+y+1)^2=0.$$

6. Find the condition that two straight lines may be at right angles.

Prove that the lines joining the points $(-3, 0)$ $(-2,+1)$ and $(-1, 6)$ $(1, 4)$ are at right angles, and find the area of the quadrilateral of which they are the angular points.

7. How would you determine the equation of the line joining two points, each of which is given by the intersection of two right lines?

ABCD is a quadrilateral, and AB, CD intersect in E, AC, BD in F, and AD, BC in O; prove that if EF cuts BC, AD in H, K, then OBHC, OAKD are harmonic ranges.

8. Define a parabola and find its equation.

Prove that the area of the triangle joining three points on a parabola whose ordinates are y_1 y_2 y_3 is

$$\frac{(y_2-y_3)(y_3-y_1)(y_1-y_2)}{8a}.$$

9. Prove that the equation

$$2x^2-2y^2-3xy+x+3y=0$$

represents a hyperbola, and find its asymptotes.

10. Define a differential coefficient, and prove *directly from the definition* that

$$\frac{d\log x}{dx}=\frac{1}{x}.$$

Differentiate these:—

$$\frac{(x-1)(x-2)}{x-3},\quad \log_e\sqrt{\frac{1-2\cos x}{1+2\cos x}},\quad x^{\tan^{-1}x}.$$

11. Investigate the conditions for the maxima and minima values of a function of one independent variable.

A given quantity of material is used in constructing a pyramid of the kind mentioned in question 2; how must it be made to have the least possible surface?

Find the value of

$$\frac{x-\tan^{-1}x}{x-\sin^{-1}x},\text{ when } x=0.$$

12. Given $\phi(x, y)=0$, find $\frac{dy}{dx}$.

If $x=f(y, z)$, $y=\phi(x, z)$, find the values of $\frac{dy}{dx}$, $\frac{d^2y}{dx^2}$.

13. State and prove the property of the evolute of a curve which gives rise to the name.

Prove that the radius of curvature of a cycloid is double the normal.

14. Integrate the expressions—

$$\frac{1}{(\sin x)^4},\quad \frac{x+a}{\sqrt{x^2+ax+a^2}},\quad \frac{1}{x^4-1},\quad \frac{1}{(a^2\cos^2 x+b^2\sin^2 x)^2}.$$

Find the volume generated by the revolution of the lemniscate $r^2=a^2\cos 2\theta$ round its axis.

Appendix D.

Sessional Examinations.

Natural Philosophy.

Examiner, Professor England.

1. Three forces, P, Q, R, of 10, 15, 10 lbs. respectively, act at a point; Q makes an angle of 60° with P, and R an angle of 60° with Q; find their resultant.

2. Two parallel forces, one of 8, the other of 12 lbs., act at distances of 4 feet and 6 feet respectively to the right of a certain point in their plane, another of 18 lbs. at 2 feet to the left of the same point and in the opposite direction; find the position and magnitude of their resultant.

3. In the ordinary balance of equal weights prove that the sensibility depends on the length of the arm, the weight of the instrument, and the position of its centre of gravity.

4. Two weights of 5 ozs. and 4 ozs. respectively, are attached to the extremities of a fine chord passing over a pulley; calculate the acceleration and find the distance passed over in 2 seconds.

5. A weight of 3lbs. is attached to one end of a cord 5 feet in length, which can just bear a strain of 5 lbs.; find the greatest velocity with which it may be made describe a circle in a vertical plane in which the other end of the cord is fixed.

6. Explain the principle on which the ordinary barometer can be used for measuring the height of a mountain.

7. What weight of a metal, whose specific gravity is 7, must be attached to w ozs. of a body whose specific gravity is ·45 in order that the compound body should just sink in water?

8. The object glass of a telescope is 3 feet focal length, and the eye-piece 1 inch; calculate its magnifying power.

9. What is meant by the equation of time? How is it caused?

10. By what observations can the latitude and longitude of a place be determined?

11. Investigate the deviation which a ray of light undergoes in passing through a prism with a small angle.

12. What must be the sun's declination when twilight lasts all night in a given latitude?

Prize Questions.

1. Investigate the general conditions of a system of forces acting in the same plane.

2. One end of a heavy beam rests on a smooth horizontal plane, the other on a smooth inclined plane; find the horizontal force necessary to prevent its slipping.

3. In the above case, if the planes were rough, what should be the coefficient of friction when the beam would be on the point of moving?

4. Investigate the formula for the time of oscillation of a simple pendulum.

5. Show that if the planets moved in circular orbits round the sun, Kepler's third law is a consequence of the law of gravity.

6. Knowing the latitude of a place, and the sun's declination, show how to find the time of sunrise.

THIRD YEAR.

English Literature.

Examiner, Professor Armstrong.

1. Name the principal English poets that flourished from the death of Chaucer to the accession of Elizabeth.

2. State the various theories of the origin of the Modern Drama, and describe the course of its development in England up to the death of Marlowe.

3. Analyze Shakspere's character of Henry V. or King John.

4. Give an account of Milton's life and writings, and contrast Milton's genius with that of Shakspere.

5. Name the characters that take part in the "Great Consult," and give an abstract of the speeches put by Milton in the mouth of each of them.

6. Give an abstract of Pope's reasoning in the *Essay on Man.*

7. Give a brief account of Dr. Johnson and his works.

8. Sketch the life of Burke to the date of the publication of *Thoughts on the Present Discontents.*

9. Account for the various peculiarities of style and thought which distinguish Cowper's works from those of his immediate predecessors.

10. Name the principal poets of the Lake School and of the Romantic School—Explain the characteristics of each school.

11. Indicate those portions of *Childe Harold* which bear the strongest marks of Shelley's influence.

12. Annotate the following passages—

(*a.*) "'T was not for fiction chose Rousseau this spot,
Peopling it with affections;"—

(*b.*) "Lausanne! and Ferney! ye have been the abodes
Of names which unto you bequeathed a name"—

(*c.*) "Before St. Mark still glows his steeds of brass,
Their gilded collars glittering in the sun;
But is not Doria's menace come to pass?"

(*d.*) "Ungrateful Florence!"

Modern History.

Examiner, Professor Armstrong.

1. Give an account of the Millenary Petition and the Hampton Court Conference.

2. Describe the war in the Palatinate.

3. Explain Strafford's Irish policy.

4. Name in their order the engagements which took place between the Royal and Parliamentary forces during the Civil Wars.

5. Describe the various retrogressive measures of Parliament during the reign of Charles II.

6. Give an account of the Treaty of Dover.

7. Describe the successive acts by which James II. hastened his overthrow; and explain the constitution of the Court of Ecclesiastical Commission.

8. Give the substance of the Declaration of Right and of the Bill of Rights.

9. Describe the course of events in Ireland from the accession of William and Mary to the Treaty of Limerick.

10. Give an account of the Scottish Act of Security.

11. Enumerate in their order the victories of Marlborough.

12. Describe the relations of Parliament to the King and the Nation respectively at the accession of George III., and give a brief summary of Burke's account of the Double Cabinet and its results.

Appendix D.

Sessional Examinations.

CHEMISTRY.

Examiner, Professor MAXWELL SIMPSON.

PASS EXAMINATION.

N.B.—This Paper was common to Students in Arts of the Third Year, and to First Year's Students in Engineering and Medicine.

1. What weight of chlorate of potash will furnish 100 grammes of oxygen gas on the application of heat?

2. How are chlorine gas and iodine prepared? Explain the reactions by equations.

3. Describe and explain the action of chlorine upon—(*a*), a lighted taper; (*b*), powdered antimony; (*c*), solution of sulphate of indigo; (*d*), solution of ammonia.

4. Describe and explain the action of iodine upon—(*a*), solution of sulphide of hydrogen; (*b*), phosphorus and water; (*c*), solution of starch.

5. Give two processes for the preparation of common tribasic phosphoric acid. Explain the reactions by equations.

6. Explain the action of nitrate of silver upon solutions of this acid (phosphoric), arsenious, and arsenic acids respectively. How would you distinguish the two first?

7. What is the composition of atmospheric air by volume? How would you prove that the gases are simply mixed, and not chemically combined?

8. What is meant by the term atomicity or equivalency as applied to an element? Give examples of monads, dyads, triads, tetrads, and pentads.

9. Write the graphic formulæ of the following compounds:—Carbon dioxide, nitric and sulphuric acids, nitrate of barytes, alcohol, glycol.

10. Explain in detail what takes place when a plate of metallic copper is left for some time in a solution of corrosive sublimate.

11. Give a process for the preparation of iodide of potassium. Explain the reactions by equations; and state how iodine may be detected in it; and, if present, chlorine and iodic acid.

12. How is caustic potash prepared? Explain by equations its action upon corrosive sublimate, calomel, and ferric chloride, respectively.

13. How are pure metallic gold and platinum obtained from the crude metals?

14. Describe and explain the action of sulphide of hydrogen upon acid solutions of arsenious acid, salts of cadmium, and tin (stannic salt), respectively. How would you distinguish the precipitates formed?

15. Write the formulæ of marsh gas, olefiant gas, and acetylene. Explain also the action of chlorine or bromine upon each of these gases.

16. Describe and explain the continuous process for the preparation of ether. Write its constitutional formula; and explain how Williamson succeeded in forming mixed ethers.

17. How are iodide and cyanide of ethyl prepared? Explain by equations the action of hydrate of potash upon each.

18. Name and write the constitutional formulæ of the acids that may be obtained from alcohol and glycol respectively by the action of oxidizing agents. Give also their atomicity and basicity.

Natural History.

Examiner, Professor Reay Greene.

N.B.—The following Papers were common to third year's students in Arts, and first year's students in Medicine.

BOTANY.

1, 2. Describe the chief modifications which the perianth undergoes among the British Ranunculaceæ.

3. What monopetalous plants have free-central placentation?

4. Wherein does the flower of a typical grass differ from that of other hypogynous monocotyledons?

5. How do you understand the terms—'acaulescent' and 'leafless,' as applied to certain flowering plants in works on systematic botany?

ZOOLOGY.

6. Contrast the Leporidæ with other rodents.

7. In what birds is the keel of the sternum (*a*) absent or (*b*) rudimentary?

8. Describe the median and paired fins of the flat-fishes (Pleuronectæ).

9. Give an account of the respiratory apparatus of the snail, so far as to note accurately its structure and position.

10. Compare the æsophageal nervous ring of the arthropods with that of the echinoderms.

Geology and Mineralogy.

Examiner, Professor Harkness.

N.B.—The following Paper was common to third year's students in Arts, and first year's students in Engineering.

1. How are Igneous distinguished from Aqueous Rocks?

2. Explain the meaning of the terms "Dip" and "Strike."

3. What is the nature of Cleavage?

4. Describe the Cambrian Rocks of South Wales.

5. What is the position of the Wenlock Shales? Name some of their characteristic fossils.

6. Indicate the lowest member of the Carboniferous formation of the South of Ireland. Mention some of the fossils which it affords.

7. What deposits in the British Isles yield Rock Salt?

8. Under what form is the Liassic formation exhibited in Ireland?

9. What is the nature of the "Gault?" What is its geological horizon?

10. To what portion of the Cainozoic series are the Bagshot Sands referable?

11. Point out the position of the Strata of the Siwalik Hills. Indicate also their nature.

12. Describe the several forms of moraines resulting from glacial action.

13. To what system of crystals does *Oligoclase* belong? What is its chemical composition?

14. What are the characters, and what is the composition of *Iron pyrites*?

Appendix D.

Scholarship Examinations.

SCHOLARSHIP EXAMINATIONS.

LITERARY SCHOLARSHIPS—FIRST YEAR.

GREEK.

Examiner, Professor BOULGER.

Translate :—

HOMER—*Iliad*, Book V., 899–906.

ὣς φάτο, καὶ Παιήον' ἀνώγει ἰήσασθαι.
τῷ δ' ἐπὶ Παιήων ὀδυνήφατα φάρμακα πάσσων
ἠκέσατ'· οὐ μὲν γάρ τι καταθνητὸς γ' ἐτέτυκτο.
ὡς δ' ὅτ' ὀπὸς γάλα λευκὸν ἐπειγόμενος συνέπηξεν
ὑγρὸν ἐὸν, μάλα δ' ὦκα περιστρέφεται κυκόωντι,
ὣς ἄρα καρπαλίμως ἰήσατο θοῦρον Ἄρηα.
τὸν δ' Ἥβη λοῦσεν, χαρίεντα δὲ εἵματα ἕσσεν·
πὰρ δὲ Διὶ Κρονίωνι καθέζετο κύδεϊ γαίων.

HERODOTUS, Book II., Chap. 121.

ὡς δὲ ἡμέρη ἐγένετο, ἐσελθόντα τὸν βασιλέα ἐς τὸ οἴκημα ἐκπεπλῆχθαι ὁρέοντα τὸ σῶμα τοῦ φωρὸς ἐν τῇ πάγῃ ἄνευ τῆς κεφαλῆς ἐὸν, τὸ δὲ οἴκημα ἀσινὲς καὶ οὔτε ἔσοδον οὔτε ἔκδυσιν οὐδεμίαν ἔχον. ἀπορεύμενον δέ μιν τάδε ποιῆσαι· τοῦ φωρὸς τὸν νέκυν κατὰ τοῦ τείχεος κατὰκρεμάσαι, φυλάκους δὲ αὐτοῦ καταστήσαντα ἐντείλασθαί σφι, τὸν ἂν ἴδωνται ἀποκλαύσαντα ἢ κατοικτισάμενον, συλλαβόντας ἄγειν πρὸς ἑωυτόν. ἀνακρεμαμένου δὲ τοῦ νέκυος τὴν μητέρα δεινῶς φέρειν, λόγους δὲ πρὸς τὸν περιεόντα παῖδα ποιευμένην προστάσσειν αὐτῷ, ὅτεῳ τρόπῳ δύναται, μηχανᾶσθαι ὅκως τὸ σῶμα τοῦ ἀδελφεοῦ καταλύσας κομιεῖ· εἰ δὲ τούτων ἀμελήσει, διαπειλέειν αὐτὴν ὡς ἐλθοῦσα πρὸς τὸν βασιλέα μηνύσει αὐτὸν ἔχοντα τὰ χρήματα.

EURIPIDES—*Hecuba*, 905–931.

σὺ μὲν ὦ πατρὶς Ἰλιάς, στρ.
τῶν ἀπορθήτων πόλις οὐκέτι λέξει·
τοῖον Ἑλλάνων νέφος ἀμφί σε κρύπτει
δορὶ δὴ δορὶ πέρσαν.
ἀπὸ δὲ στεφάναν κέκαρσαι
πύργων, κατὰ δ' αἰθάλου καπνοῦ
κηλῖδ' οἰκτροτάταν κέχρωσαι,
τάλαιν', οὐκέτι σ' ἐμβατεύσω.
μεσονύκτιος ὠλλύμαν, ἀντ.
ἦμος ἐκ δείπνων ὕπνος ἡδὺς ἐπ' ὄσσοις
κίδναται, μολπᾶν δ' ἄπο καὶ χαροποιὸν
θυσίαν καταπαύσας
πόσις ἐν θαλάμοις ἔκειτο,
ξυστὸν δ' ἐπὶ πασσάλῳ,
ναύταν οὐκέθ' ὁρῶν ὅμιλον
Τροίαν Ἰλιάδ' ἐμβεβῶτα.
ἐγὼ δὲ πλόκαμον ἀναδέτοις στρ.
μίτραισιν ἐρρυθμιζόμαν

χρυσέων ἐνόπτρων
λεύσσουσ' ἀτέρμονας εἰς αὐγάς,
ἐπιδέμνιον ὡς πέσοιμ' ἐς εὐνάν.
ἀνὰ δὲ κέλαδος ἔμολε πόλιν·
κέλευσμα δ' ἦν κατ' ἄστυ Τροίας τόδ'· ὦ
παῖδες Ἑλλάνων, πότε δὴ πότε τὰν
Ἰλιάδα σκοπιὰν
πέρσαντες ἥξετ' οἴκους ;

XENOPHON—*Anabasis*, I., ix., 1–5.

Κῦρος μὲν οὖν οὕτως ἐτελεύτησεν, ἀνὴρ ὢν Περσῶν τῶν μετὰ Κῦρον τὸν ἀρχαῖον γενομένων βασιλικώτατός τε καὶ ἄρχειν ἀξιώτατος, ὡς παρὰ πάντων ὁμολογεῖται τῶν Κύρου δοκούντων ἐν πείρᾳ γενέσθαι. πρῶτον μὲν γὰρ ἔτι παῖς ὢν ὅτ' ἐπαιδεύετο καὶ σὺν τῷ ἀδελφῷ καὶ σὺν τοῖς ἄλλοις παισί, πάντων πάντα κράτιστος ἐνομίζετο. πάντες γὰρ οἱ τῶν ἀρίστων Περσῶν παῖδες ἐπὶ ταῖς βασιλέως θύραις παιδεύονται· ἔνθα πολλὴν μὲν σωφροσύνην καταμάθοι ἄν τις, αἰσχρὸν δ' οὐδὲν οὔτ' ἀκοῦσαι οὔτ' ἰδεῖν ἔστι. θεῶνται δ' οἱ παῖδες καὶ τοὺς τιμωμένους ὑπὸ βασιλέως καὶ ἀκούουσι, καὶ ἄλλους ἀτιμαζομένους· ὥστε εὐθὺς παῖδες ὄντες μανθάνουσιν ἄρχειν τε καὶ ἄρχεσθαι. ἔνθα Κῦρος αἰδημονέστατος μὲν πρῶτον τῶν ἡλικιωτῶν ἐδοκει εἶναι, τοῖς τε πρεσβυτέροις καὶ τῶν ἑαυτοῦ ὑποδεεστέρων μᾶλλον πείθεσθαι, ἔπειτα δὲ φιλιππότατος καὶ τοῖς ἵπποις ἄριστα χρῆσθαι· ἔκρινον δ' αὐτὸν καὶ τῶν εἰς τὸν πόλεμον ἔργων, τοξικῆς τε καὶ ἀκοντίσεως, φιλομαθέστατον εἶναι καὶ μελετηρότατον.

Translate into Greek :—

1. If you associate with the bad you will become bad yourself.
2. It is not right for one who suffers wrong to avenge himself by doing wrong in return.
3. I love such a man as you.
4. He was nearly seventy years old when he died.
5. The flatterer is a person who will say as he walks with another 'Do you observe how people are looking at you?' Then he will request the company to be silent when the great man is speaking, and will praise him in his hearing.

LATIN.

Examiner, Professor LEWIS.

1. Mention some cases where the use of the relative pronoun in Latin differs from the English idiom.
2. Give the rules for the pentameter verse, and state the principal exceptions.
3. Relate the war with Jugurtha.
4. Trace the course of the following rivers:—Padus, Tiberis, Liger, Rhodanus, and Baetis.
5. What are the perfects and supines of *sedeo*, *tondeo*, *findo*, *fingo*, *plecto*, and *vincio*?

Re-translate into Latin :—

To this most sacred voice of my country, and to all those who blame me after the same manner, I shall make this short answer, that if I had

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Scholarship Examinations.

thought it the most advisable to put Catiline to death, I would not have allowed that gladiator the use of one moment's life: for if, in former days, our most illustrious citizens, instead of sullying, have done honour to their memories, by the destruction of Saturninus, the Gracchi, Flaccus, and many others; there is no ground to fear, that by killing this parricide any envy would lie upon me with posterity.

English Language.

Examiner, Professor Armstrong.

Composition.

Write an essay on *The Advantages of a Knowledge of Ancient History.*

History and Grammar of the Language.

1. Describe, account for, and illustrate by examples, the decay of the inflectional system of Anglo-Saxon.
2. Define the several periods into which Dr. Craik divides the history of the English language.
3. Describe the characteristics of the language of the Fourth Period.
4. Give the substance of Dr. Craik's account (after Mr. Guest) of the local origin of standard English.
5. Give a brief account of the Romance tongues, and their origin and localization.
6. Discuss the question, whether a grammatical knowledge of Greek and Latin is essential to a thorough understanding and correct use of modern English.
7. Give a brief account of the derivation of English parts of speech.
8. Give the rules for the placing of the adverb in English sentences, and illustrate them by examples.

Ancient History and Ancient and Modern Geography.

History of Greece and Rome.

1. Give the substance of the legends of the Greeks respecting their origin.
2. Relate the story of the Seven against Thebes.
3. Compare together the distinctive features of the early political systems of Sparta and Athens.
4. Sketch briefly the progress of the literature of the Greeks to the close of the Persian Wars.
5. Describe the principal events of the First and Second Macedonian Wars.
6. Give a brief account of the civil history of Rome during the Macedonian and Syrian Wars.
7. Give a brief account of the First Slave War in Sicily.
8. Describe the origin and events of the Second Slave War.

Ancient and Modern Geography.

1. Give the ancient and modern names of the principal rivers of France.
2. Give the names of the principal Greek colony-towns of Italy, Sicily, and Gaul; and describe their situation.
3. Describe the situation and surroundings of Athens, Sparta, Carthage, and Rome.

4. Give a geographical account of the Turkish Empire, and describe the relative positions of Montenegro, Bulgaria, and Servia.

5. Give the names of the States of the American Union, and the names of their chief cities.

6. Name the principal mountain-ranges of India, and give a brief account of the British Indian Empire.

LITERARY SCHOLARSHIPS—SECOND AND THIRD YEARS.

GREEK.

Examiner, Professor BOULGER.

Translate:—

HERODOTUS, I., 85.

κατ' αὐτὸν δὲ Κροῖσον τάδε ἐγένετο. ἦν οἱ παῖς, τοῦ καὶ πρότερον ἐπεμνήσθην, τὰ μὲν ἄλλα ἐπιεικὴς, ἄφωνος δέ. ἐν τῇ ὦν παρελθούσῃ εὐεστοῖ ὁ Κροῖσος τὸ πᾶν ἐς αὐτὸν ἐπεποιήκεε ἄλλα τε ἐπιφραζόμενος καὶ δὴ καὶ ἐς Δελφοὺς περὶ αὐτοῦ ἐπεπόμφεε χρησομένους. ἡ δὲ Πυθίη οἱ εἶπε τάδε.

Λυδὲ γένος, πολλῶν βασιλεῦ, μέγα νήπιε Κροῖσε,
μὴ βούλευ πολύευκτον ἰὴν ἀνὰ δώματ' ἀκούειν
παιδὸς φθεγγομένου. τὸ δέ σοι πολὺ λώϊον ἀμφὶς
ἔμμεναι· αὐδήσει γὰρ ἐν ἤματι πρῶτον ἀνόλβῳ.

ἁλισκομένου δὲ τοῦ τείχεος, ἤϊε γὰρ τῶν τις Περσέων ἀλλογνώσας Κροῖσον ὡς ἀποκτενέων, Κροῖσος μέν νυν ὁρέων ἐπιόντα ὑπὸ τῆς παρεούσης συμφορῆς παρημελήκεε, οὐδέ τί οἱ διέφερε πλεῦνες ἀποθανέειν· ὁ δὲ παῖς οὗτος ὁ ἄφωνος ὡς εἶδε ἐπιόντα τὸν Πέρσην, ὑπὸ δέους τε καὶ κακοῦ ἔρρηξε φωνὴν, εἶπε δέ· Ὦνθρωπε, μὴ κτεῖνε Κροῖσον. οὗτος μὲν δὴ τοῦτο πρῶτον ἐφθέγξατο, μετὰ δὲ τοῦτο ἤδη ἐφώνεε τὸν πάντα χρόνον τῆς ζόης.

HERODOTUS, I., 200.

νόμοι μὲν δὴ τοῖσι Βαβυλωνίοισι οὗτοι κατεστέασι, εἰσὶ δὲ αὐτῶν πατριαὶ τρεῖς, αἳ οὐδὲν ἄλλο σιτέονται εἰ μὴ ἰχθῦς μοῦνον, τοὺς ἐπεί τε ἂν θηρεύσαντες αὐήνωσι πρὸς ἥλιον, ποιεῦσι τάδε· ἐσβάλλουσι ἐς ὄλμον καὶ λεήναντες ὑπέροισι σῶσι διὰ σινδόνος· καὶ ὃς μὲν ἂν βούληται αὐτῶν, ἄτε μάζαν μαξάμενος ἔχει, ὁ δὲ ἄρτου τρόπον ὀπτήσας.

SOPHOKLES—*Oedipus Rex*, 473–482.

ἔλαμψε γὰρ τοῦ νιφόεντος ἀρτίως φανεῖσα
φάμα Παρνασσοῦ τὸν ἄδηλον ἄνδρα πάντ' ἰχνεύειν.
φοιτᾷ γὰρ ὑπ' ἀγρίαν
ὕλαν ἀνά τ' ἄντρα καὶ
πέτρας ἅτε ταῦρος,
μέλεος μελέᾳ ποδὶ χηρεύων,
τὰ μεσόμφαλα γᾶς ἀπονοσφίζων
μαντεῖα· τὰ δ' ἀεὶ
ζῶντα περιποτᾶται.

PLATO—*Phaedon*, 58.

τὴν μέντοι ἰδέαν τῆς γῆς, οἵαν πέπεισμαι εἶναι, καὶ τοὺς τόπους αὐτῆς οὐδέν με κωλύει λέγειν. ἀλλ', ἔφη ὁ Σιμμίας, καὶ ταῦτα ἀρκεῖ. πέπεισμαι τοίνυν, ἦ δ' ὅς, ἐγὼ ὡς πρῶτον μέν, εἰ ἔστιν ἐν μέσῳ τῷ οὐρανῷ περιφερὴς

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οὖσα, μηδὲν αὐτῇ δεῖν μήτε ἀέρος πρὸς τὸ μὴ πεσεῖν μήτε ἄλλης ἀνάγκης μηδεμιᾶς τοιαύτης, ἀλλὰ ἱκανὴν εἶναι αὐτὴν ἴσχειν τὴν ὁμοιότητα τοῦ οὐρανοῦ αὐτοῦ ἑαυτῷ πάντῃ καὶ τῆς γῆς αὐτῆς τὴν ἰσορροπίαν· ἰσόρροπον γὰρ πρᾶγμα ὁμοίου τινὸς ἐν μέσῳ τεθὲν οὐχ ἕξει μᾶλλον οὐδ' ἧττον οὐδαμόσε κλιθῆναι, ὁμοίως δ' ἔχον ἀκλινὲς μενεῖ. πρῶτον μέν, ἦ δ' ὅς, τοῦτο πέπεισμαι. καὶ ὀρθῶς γε, ἔφη ὁ Σιμμίας. ἔτι τοίνυν, ἔφη, πάμμεγά τι εἶναι αὐτό, καὶ ἡμᾶς οἰκεῖν τοὺς μέχρι Ἡρακλείων στηλῶν ἀπὸ Φάσιδος ἐν σμικρῷ τινὶ μορίῳ, ὥσπερ περὶ τέλμα μύρμηκας ἢ βατράχους περὶ τὴν θάλατταν οἰκοῦντας, καὶ ἄλλους ἄλλοθι πολλοὺς ἐν πολλοῖς τοιούτοις τόποις οἰκεῖν. εἶναι γὰρ πανταχῇ περὶ τὴν γῆν πολλὰ κοῖλα καὶ παντοδαπὰ καὶ τας ἰδέας καὶ τὰ μεγέθη, εἰς ἃ ξυνερρυηκέναι τό τε ὕδωρ καὶ τὴν ὁμίχλην καὶ τὸν ἀέρα· αὐτὴν δὲ τὴν γῆν καθαρὰν ἐν καθαρῷ κεῖσθαι τῷ οὐρανῷ, ἐν ᾧπερ ἐστὶ τὰ ἄστρα, ὃν δὴ αἰθέρα ὀνομάζειν τοὺς πολλοὺς τῶν περὶ τὰ τοιαῦτα εἰωθότων λέγειν· οὗ δὴ ὑποστάθμην ταῦτα εἶναι καὶ ξυρρεῖν ἀεὶ εἰς τὰ κοῖλα τῆς γῆς. ἡμᾶς οὖν οἰκοῦντας ἐν τοῖς κοίλοις αὐτῆς λεληθέναι καὶ οἴεσθαι ἄνω ἐπὶ τῆς γῆς οἰκεῖν, ὥσπερ ἂν εἴ τις ἐν μέσῳ τῷ πυθμένι τοῦ πελάγους οἰκῶν οἴοιτό τε ἐπὶ τῆς θαλάττης οἰκεῖν καὶ διὰ τοῦ ὕδατος ὁρῶν τὸν ἥλιον καὶ τὰ ἄλλα ἄστρα τὴν θάλατταν ἡγοῖτο οὐρανὸν εἶναι, διὰ δὲ βραδυτῆτά τε καὶ ἀσθένειαν μηδεπώποτε ἐπὶ τὰ ἄκρα τῆς θαλάττης ἀφιγμένος μηδὲ ἑωρακὼς εἴη, ἐκδὺς καὶ ἀνακύψας ἐκ τῆς θαλάττης εἰς τὸν ἐνθάδε τόπον, ὅσῳ καθαρώτερος καὶ καλλίων τυγχάνει ὢν τοῦ παρὰ σφίσι, μηδὲ ἄλλου ἀκηκοὼς εἴη τοῦ ἑωρακότος.

Translate into Greek :—

The Greeks were in the midst of a hostile country, ten thousand stadia from home, surrounded by enemies, blocked up by impassable mountains and rivers, without guides, without provisions, without cavalry to aid their retreat, without generals to give orders. A stupor of sorrow and conscious helplessness seized upon all : few came to the evening muster ; few lighted fires to cook their suppers : every man lay down to rest where he was ; yet no man could sleep, for fear, anguish, and yearning after relatives whom he was never again to behold.

Latin.

Examiner, Professor Lewis.

Translate :—

Juvenal, X., 118–132.

Eloquio sed uterque perit orator ; utrumque
Largus et exundans leto dedit ingenii fons.
Ingenio manus est et cervix caesa ; nec umquam
Sanguine causidici maduerunt rostra pusilli.
O fortunatam natam me consule Romam—
Antoni gladios potuit contemnere, si sic
Omnia dixisset. Ridenda poemata malo,
Quam te conspicuae, divina Philippica, famae,
Volveris a prima quae proxima. Saevus et illum
Exitus eripuit, quem mirabantur Athenae
Torrentem et pleni moderantem frena theatri.
Dis ille adversis genitus fatoque sinistro,
Quem pater ardentis massae fuligine lippus
A carbone et forcipibus gladiosque parante
Incude et luteo Vulcano ad rhetora misit.

Translate into Latin Elegiacs :—

Yes ! let the rich deride, the proud disdain,
These simple blessings of the lowly train ;
To me more dear, congenial to my heart,
One native charm, than all the gloss of art ;
Spontaneous joys, where nature has its play,
The soul adopts, and owns their first born sway :
Lightly they frolic o'er the vacant mind,
Unenvy'd, unmolested, unconfin'd.

Translate into Latin prose :—

The navy maintained by the emperors might seem inadequate to their greatness ; but it was fully sufficient for every useful purpose of government. The ambition of the Romans was confined to the land, nor was that warlike people ever actuated by the enterprising spirit which had prompted the navigators of Tyre, of Carthage, and even of Marseilles, to enlarge the bounds of the world, and to explore the most remote coasts of the ocean. To the Romans the ocean remained an object of terror rather than of curiosity ; the whole extent of the Mediterranean, after the destruction of Carthage and the extirpation of the pirates, was included within their provinces.

English Language.

Examiner, Professor Armstrong.

1. Describe, and illustrate by examples, the changes in the form and sound of words which cannot be classed with the permutations which come under Grimm's Law.

2. Endeavour to account for the fact that, whereas "in the oldest English written language, from the ninth to the end of the eleventh century, we find scarcely any traces of Keltic words," we yet find traces of words of Keltic origin with considerable frequency in the old writers from the thirteenth century downwards, and in northern provincial dialects.

3. Contrast the Latin words in the language of the Second Period with those in the language of the Third Period ; and account for their differences of form and character.

4. Give examples of words of Scandinavian origin in Norman-French and in English respectively.

5. State accurately the chief grammatical differences between the oldest English and the English of the present day.

6. Decline *dæg, fœt,* and *denu.*

7. Name the classes of words which belong respectively to the First and Second Declensions of the Indefinite Form of the A. S. adjectives.

8. Write out the several tenses of the verb *nabban.*

9. Make a metrical analysis of the following passage, explaining the metrical and grammatical rules which guide you ; parse the first two lines minutely ; and render the whole passage accurately in modern English prose :—

"This thing was graunted, and oure othes swore
With ful glad herte, and prayden him also
That he wolde vouchesauf to doon so,
And that he wolde ben oure governour,
And of oure tales jugge and re portour,

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And set a souper at a certeyn prys;
And we wolde rewled be at his devys,
In heygh and lowe; and thus by oon assent,
We ben accorded to his juggement."

10. Name the principal English and Anglo-Norman authors from the Conquest to the death of Chaucer, and describe the various characteristics of the literature of that period.

11. Explain the relations of the language and literature of the English people to their political history during the same period.

Modern Languages.

Examiner, Professor De Vericour.

N.B.—This paper was common to the candidates for Second and Third Year Scholarships, and the Senior Scholarship in Modern Languages, Literature, and History in Arts; and for the Scholarships of the Second Year in Medicine and Engineering. Medical Students were expected to answer the three first questions only.

a. Translate into French :—

Scipio landed in Africa. His first step was to restore discipline to the army. He next took by storm Megara, a suburb of Carthage, and then proceeded to construct a work across the entrance of the harbour, to cut off the city from all supplies by sea. But the Carthaginians defended themselves with a courage and an energy rarely paralleled in history. While Scipio was engaged in this laborious task, they built a fleet of fifty ships in their inner port and cut a new channel, communicating with the sea. Hence, when Scipio at length succeeded in blocking up the entrance of the harbour, he found all his labour useless, as the Carthaginians sailed out to sea by the new outlet. But this fleet was destroyed after an obstinate engagement which lasted three days. At length, in the following year, Scipio had made all his preparations for the final assault. The Carthaginians defended themselves with the courage of despair. They fought from street to street, and from house to house, and the work of destruction and butchery went on for six days.

b. Translate into French, German, or Italian :—

The Conqueror and his descendants to the fourth generation were not Englishmen : most of them were born in France : they spent the greater part of their lives in France : their ordinary speech was French : almost every high office in their gift was filled by a Frenchman : every acquisition which they made on the Continent estranged them more and more from the population of our island. One of the ablest among them, indeed, attempted to win the hearts of his English subjects by espousing an English princess. But, by many of his barons, this marriage was regarded as a marriage between a white planter and a quadroon girl would now be regarded in Virginia. In history he is known by the honourable name of Beauclerc; but, in his own time, his own countrymen called him by a Saxon nickname, in contemptuous allusion to his Saxon connexion.

Macaulay.

1. State the difference between the verbs *reformer* and *réformer; recréer* and *récréer; reprouver* and *réprouver; repartir* and *répartir*.

2. What is understood by the word *Renaissance?*

3. Which are the fundamental differences between the theatrical school of England, as represented by Shakespeare, and that of France, as represented by Racine?

4. Mention some of the French Onomatopœia.

5. Mention the periods when the literatures of Italy, Spain, England, and Germany exercised an influence on that of France.

6. State what you know of the life and works of one of the following authors: Lafontaine, Bossuet, Madame De Sevigné.

7. Give a short account of the life and works of Lessing, and of his influence on German literature.

8. Explain the double influence of Petrarca and Boccaccio on Italian literature, and on the revival of classical literature.

SCIENCE SCHOLARSHIPS—FIRST YEAR.

Mathematics.

Examiner, Professor Niven.

N.B.—This Paper and the following one were common to candidates for a Schola rship of the First Year in Arts, Engineering, and Medicine.

FIRST PAPER.

N.B.—The University Prizes in Geometry were awarded for answering in this Paper.

1. In any triangle the greater side has the greater angle opposite to it.

2. If a triangle and a quadrilateral stand on the same base, the triangle enclosing the quadrilateral, and none of the angles of the latter being re-entrant, the perimeter of the triangle is greater than that of the quadrilateral.

3. If the square on one side of a triangle be equal to the sum of the squares on the other two sides, the triangle is right-angled.

4. Describe a triangle having one side given, the area and the sum of the other two sides.

5. The angle at the centre of a circle is double the angle at the circumference. If two chords of a circle be drawn intersecting each other, the angle between them will be half the sum or difference of the angles subtended at the centre by the arcs intercepted between them according as the point of intersection is within or without the circle.

6. If a chord of a circle and a tangent be drawn from an external point, the square on the tangent is equal to the rectangle under the segments of the chord.

7. Describe a polygon which shall be similar and similarly situated to a given polygon.

8. If perpendiculars be drawn from any point of a circle upon two tangents and their chord of contact, the perpendicular on the chord of contact is a mean proportional between the perpendiculars on the tangents. Describe a circle passing through a given point and touching two given straight lines.

9. D, E, F are the middle points of BC, CA, AB, and P is any point on EF. BP, CP are joined and produced to meet DE, DF respectively in R, Q: prove that AP, BQ, CR are parallel and that QR passes through A.

10. Inscribe in a triangle a parallelogram similar to a given parallelogram, having a side coinciding with a side of the triangle, and its other angles lying on the other two sides of the triangle.

Appendix D.

Scholarship Examinations.

SECOND PAPER.

1. State and prove the rule for multiplying two decimal fractions together.

Express as a vulgar fraction $2\cdot\dot{3}0\dot{3}$.

2. A merchant received three consignments of goods, consisting of 85, 160, and 45 parcels respectively. For each parcel of the first consignment he paid £4 5*s.*, for each of the second £1 12*s.* 6*d.*, and for each of the third £2 15*s.* On these consignments he made profits respectively of 20, 12, and 4 per cent. What did he gain on the whole, and what rate per cent. profit had he on his total outlay?

3. The sides of a triangular field are 225 mètres, 425 mètres, and 250 mètres. Express the area of the field in square yards and in acres. [You may take a mètre equal to 39·4 inches.]

4. Prove that—

$$(a-2b)^3+(b-2a)^3+(a+b)^3=3(a-2b)\,(b-2a)\,(a+b).$$

5. Find the G. C. M. of—

$$2x^3-x^2-4x+3 \quad \text{and} \quad 4x^4-5x^3-x+2,$$

and the L. C. M. of—

$$a^2-b^2-c^2+2bc,\ \ b^2-c^2-a^2+2ca,\ \ c^2-a^2-b^2+2ab.$$

6. Simplify the following expressions :—

$$\frac{a+b}{a-b}-\frac{a^2+b^2}{a^2-b^2},\qquad \frac{a^3-b^3}{a^3+b^3}-\frac{a-b}{a+b},$$

and divide the first by the second.

7. Solve the following equations :—

(1) $\dfrac{6x+5}{4x+3}=\dfrac{3x-1}{2x-7}$;

(2) $\dfrac{x-1}{x+3}+\dfrac{x+3}{x-1}=\dfrac{2x+4}{x}$;

(3) $x^2+y^2-xy=7,\ \ 3xy-(x+y)=5.$

8. A well, which is fed by a constant spring, is provided with two pumps, whose efficiencies are as 5 : 4. The first pump is worked for half an hour, and half an hour after this the height of the water in the well is noted and it is found to be three-fourths full. Both pumps are then put in operation, and in an hour and a half the water is reduced to its original level, and the pumping being continued, the well becomes dry in three hours. How full was the well originally, and how long will the spring take of itself to fill the well?

9. Sum the series—

$\frac{3}{2}+2+\frac{5}{2}+\ldots$ to 16 and to n terms,

$1+1\frac{1}{2}+2\frac{1}{4}+\ldots$ to 8 terms and to infinity.

10. The natural numbers 1, 2, 3 . . . are written down in order, and every third term is cut out, and from the resulting series all but the third terms are cut out. Find the first six terms of the series so obtained, the $2n^{\text{th}}$ term and the $(2n+1)^{\text{th}}$ term.

Show also that the n^{th} term may be written $\dfrac{9n}{2}-\frac{3}{4}-\frac{1}{4}(-1)^n$.

11. Determine the sines of 30° and of 675°.

12. Prove the formulæ—

$$\sin 2A=2\sin A\cos A,$$

$$\sin^4(A+45°)-\sin^4(A-45°)=\sin 2A.$$

13. Given two angles and a side of a triangle, find the remaining sides and angles.

Prove that in any triangle $a^2-b^2 : c^2 :: \sin\overline{A-B} : \sin\overline{A+B}$.

SCIENCE SCHOLARSHIPS—SECOND AND THIRD YEARS. *Appendix D.*

Scholarship Examinations.

MATHEMATICS.

Examiner, Professor NIVEN.

N.B.—Subject to the modifications pointed out below, this Paper was also given to candidates for Scholarships of the second year in Engineering.

1. Prove that similar triangles are in the duplicate ratio of their homologous sides.

2. Inscribe a square in a triangle so as to have one side coincident with a side of the triangle and the remaining two angles lying on the other two sides of the triangle.

Extend also the construction to the case where the inscribed figure is a parallelogram similar to a given parallelogram.

3. Solve the equations :—

(1.) $x - \frac{1}{x^2} - \frac{y}{2}\left(1 - \frac{1}{x}\right) = 0.$

(2.) $(x-y)^{\frac{1}{2}} - (x-y)^{-\frac{1}{2}} = \frac{3}{2}$, $x^3 - y^3 = 28.$

4. Find the number of combinations of n things taken r together.

Prove also *directly*, that—

$$_nC'_r = {}_{n-1}C'_r + {}_{n-1}C'_{r-1}.$$

5. Find the sum of the following series :—

$1^2 + 2^2 + 3^2 +$ .... to n terms.

$1 + 3x + 5x^2 +$ .... to infinity.

6. Express as a product $\cos A + \cos B$.

Given $\sec c = \cos\theta + \tan b \sin\theta$, obtain the equation which gives $\tan\frac{\theta}{2}$, and prove that if $\tan\frac{\alpha}{2}$ and $\tan\frac{\beta}{2}$ be its two values; then—

$$\tan\frac{\alpha}{2}\tan\frac{\beta}{2} = \tan^2\frac{c}{2}.$$

7. Solve a triangle, having given two sides and the included angles. If r be the radius of the inscribed circle of a triangle A B C, r_1 r_2 r_3, the radii of the three escribed circles, prove that $rr_1 + r_2 r_3 = bc$.

8. If a rational integral algebraic equation have an imaginary root of the form $a + b\sqrt{-1}$, it will also have another root $a - b\sqrt{-1}$: prove this.

It is known that the equation $x^4 - 2x^2 + 16x - 15 = 0$ has a root of the form $1 + a\sqrt{-1}$: solve the equation.

9. Find the equation of the straight line which passes through a fixed point and cuts off a given length from the axis of x.

Find also the length and equation of the perpendicular from the point (2, 1) upon the line $x - 7y = 0$.

10. Find the equation which represents the circle described round the triangle A B C, taking for axis of co-ordinate the line B C, and the line which bisects B C at right angles.

Obtain also the equation of the tangents at B, C.

11. Define and find the equation of an ellipse.

12. If a straight line which meets a plane be at right angles to two straight lines in the plane cutting it, it will be at right angles to every line in the plane which cuts it.

[N.B.—Candidates for the Scholarship in Engineering substituted for 9, 10, 11 above, the following questions.]

9. Prove that spherical isosceles triangles have the angles opposite the equal sides also equal.

10. What are the poles of the sides of a spherical triangle? Obtain

Appendix D. Scholarship Examinations.

the relations which connect the sides and angles of the polar and primitive triangles.

11. Given the sides of a spherical triangle, solve it. If the area A D, B E, C F, be drawn from the angles A B C of a spherical triangle perpendicular to the opposite sides, prove that—

cos 13 D, cos C E, cos A F=cos C D, cos B F, cos A E.

SENIOR SCHOLARSHIPS.

I.—ANCIENT LANGUAGES AND HISTORY.

GREEK.

Examiner, Professor BOULGER.

Translate:—

THUKYDIDES, III., 61.

τοὺς μὲν λόγους οὐκ ἂν ᾑτησάμεθα εἰπεῖν, εἰ καὶ αὐτοὶ βραχέως τὸ ἐρωτηθὲν ἀπεκρίναντο καὶ μὴ ἐπὶ ἡμᾶς τραπόμενοι κατηγορίαν ἐποιήσαντο καὶ περὶ αὐτῶν ἔξω τῶν προκειμένων καὶ ἅμα οὐδὲ ᾑτιαμένων πολλὴν τὴν ἀπολογίαν καὶ ἔπαινον ὧν οὐδεὶς ἐμέμψατο. νῦν δὲ πρὸς μὲν τὰ ἀντειπεῖν δεῖ, τῶν δὲ ἔλεγχον ποιήσασθαι, ἵνα μήτε ἡ ἡμετέρα αὐτοὺς κακία ὠφελῇ μήτε ἡ τούτων δόξα, τὸ δ' ἀληθὲς περὶ ἀμφοτέρων ἀκούσαντες κρίνητε. ἡμεῖς δὲ αὐτοῖς διάφοροι ἐγενόμεθα πρῶτον ὅτι ἡμῶν κτισάντων Ηλάταιαν ὕστερον τῆς ἄλλης Βοιωτίας καὶ ἄλλα χωρία μετ' αὐτῆς, ἃ ξυμμίκτους ἀνθρώπους ἐξελάσαντες ἔσχομεν, οὐκ ἠξίουν οὗτοι, ὥσπερ ἐτάχθη τὸ πρῶτον, ἡγεμονεύεσθαι ὑφ' ἡμῶν, ἔξω δὲ τῶν ἄλλων Βοιωτῶν παραβαίνοντες τὰ πάτρια, ἐπειδὴ προσηναγκάζοντο, προσεχώρησαν πρὸς Ἀθηναίους καὶ μετ' αὐτῶν πολλὰ ἡμᾶς ἔβλαπτον, ἀνθ' ὧν καὶ ἀντέπασχον.

SOPHOKLES—*Antigone*, 771–783.

Ἔρως ἀνίκατε μάχαν,
Ἔρως, ὃς ἐν κτήμασι πίπτεις,
ὃς ἐν μαλακαῖς παρειαῖς
νεάνιδος ἐννυχεύεις,
φοιτᾷς δ' ὑπερπόντιος ἔν τ' ἀγρονόμοις αὐλαῖς·
καί σ' οὔτ' ἀθανάτων φύξιμος οὐδεὶς
οὔθ' ἁμερίων ἐπ' ἀνθρώπων, ὁ δ' ἔχων μέμηνεν.
σὺ καὶ δικαίων ἀδίκους
φρένας παρασπᾷς ἐπὶ λώβᾳ·
σὺ καὶ τόδε νεῖκος ἀνδρῶν
ξύναιμον ἔχεις ταράξας·
νικᾷ δ' ἐναργὴς βλεφάρων ἵμερος εὐλέκτρου
νύμφας, τῶν μεγάλων οὐχὶ πάρεδρος
θεσμῶν· ἄμαχος γὰρ ἐμπαίζει θεὸς Ἀφροδίτα.

DEMOSTHENES—*De Corona*, 330.

εἶτα τῶν πρότερον γεγενημένων ἀγαθῶν ἀνδρῶν μέμνησαι. καὶ καλῶς ποιεῖς. οὐ μέντοι δίκαιόν ἐστιν, ὦ ἄνδρες Ἀθηναῖοι, τὴν πρὸς τοὺς τετελευτηκότας εὔνοιαν ὑπάρχουσαν προλαβόντα παρ' ὑμῶν πρὸς ἐκείνους ἐξετάζειν καὶ παραβάλλειν ἐμὲ τὸν νῦν ζῶντα μεθ' ὑμῶν. τίς γὰρ οὐκ οἶδε τῶν πάντων ὅτι τοῖς μὲν ζῶσι πᾶσιν ὕπεστί τις ἢ πλείων ἢ ἐλάττων φθόνος, τοὺς τεθνεῶτας δὲ οὐδὲ τῶν ἐχθρῶν οὐδεὶς ἔτι μισεῖ; οὕτως οὖν ἐχόντων τούτων τῇ φύσει, πρὸς τοὺς πρὸ ἐμαυτοῦ νῦν ἐγὼ κρίνωμαι καὶ θεωρῶμαι; μηδαμῶς· οὔτε γὰρ δίκαιον οὔτ' ἴσον, Αἰσχίνη, ἀλλὰ πρὸς σὲ καὶ ἄλλον εἴ τινα βούλει τῶν ταὐτά σοι προῳρημένων καὶ ζώντων. κἀκεῖνο σκόπει. πότερον κάλλιον καὶ ἄμεινον τῇ πόλει διὰ τὰς τῶν πρότερον εὐεργεσίας, οὕσας ὑπερμεγέθεις, οὐ μὲν οὖν εἴποι τις ἂν ἡλίκας, τὰς ἐπὶ τὸν παρόντα βίον γιγνομένας εἰς ἀχαριστίαν καὶ προπηλακισμὸν ἄγειν, ἢ πᾶσιν, ὅσοι τι μετ' εὐνοίας πράττουσι, τῆς παρὰ τούτων τιμῆς καὶ φιλανθρωπίας

μετεῖναι; καὶ μὴν εἰ καὶ τοῦτ' ἄρα δεῖ με εἰπεῖν, ἡ μὲν ἐμὴ πολιτεία καὶ προαίρεσις, ἄν τις ὀρθῶς σκοπῇ, ταῖς τῶν τότ' ἐπαινουμένων ἀνδρῶν ὁμοία καὶ ταὐτὰ βουλομένη φανήσεται, ἡ δὲ σὴ ταῖς τῶν τοὺς τοιούτους τότε συκοφαντούντων· δῆλον γὰρ ὅτι καὶ κατ' ἐκείνους ἦσάν τινες, οἳ διέσυρον μὲν τοὺς ὄντας τότε, τοὺς δὲ πρότερον γεγενημένους ἐπῄνουν, βάσκανον πρᾶγμα καὶ ταὐτὸ ποιοῦντες σοί.

THEOKRITUS, VII., 128.

τόσσ' ἐφάμαν· ὁ δέ μοι τὸ λαγωβόλον, ἀδὺ γελάσσας,
ὡς πάρος, ἐκ Μοισᾶν ξεινήϊον ὥπασεν εἶμεν.
χὠ μὲν ἀποκλίνας ἐπ' ἀριστερὰ τὰν ἐπὶ Πύξας
εἶρφ' ὁδόν· αὐτὰρ ἐγώ τε καὶ Εὔκριτος ἐς Φρασιδάμω
στραφθέντες χὠ καλὸς Ἀμύντιχος ἔν τε βαθείαις
ἀδείας σχίνοιο χαμεύνισιν ἐκλίνθημες,
ἔν τε νεοτμάτοισι γεγαθότες οἰναρέοισι.
πολλαὶ δ' ἄμμιν ὕπερθε κατὰ κρατὸς δονέοντο
αἴγειροι πτελέαι τε· τὸ δ' ἐγγύθεν ἱερὸν ὕδωρ
Νυμφᾶν ἐξ ἄντροιο κατειβόμενον κελάρυσδε.
τοὶ δὲ ποτὶ σκιεραῖς ὀροδαμνίσιν αἰθαλίωνες
τέττιγες λαλαγεῦντες ἔχον πόνον· ἃ δ' ὁλολυγὼν
τηλόθεν ἐν πυκιναῖσι βάτων τρύζεσκεν ἀκάνθαις.

THEOPHRASTUS, V.

ἡ μὲν οὖν εἰρωνεία δόξειεν ἂν εἶναι, ὡς τύπῳ λαβεῖν, προσποίησις ἐπὶ χεῖρον πράξεων καὶ λόγων, ὁ δὲ εἴρων τοιοῦτός τις οἷος προσελθὼν τοῖς ἐχθροῖς ἐθέλειν λαλεῖν, οὐ μισεῖν· καὶ ἐπαινεῖν παρόντας οἷς ἐπέθετο λάθρα καὶ τούτοις συλλυπεῖσθαι ἠττωμένοις· καὶ συγγνώμην δὲ ἔχειν τοῖς αὐτὸν κακῶς λέγουσι καὶ ἐπὶ τοῖς καθ' ἑαυτοῦ λεγομένοις· καὶ πρὸς τοὺς ἀδικουμένους καὶ ἀγανακτοῦντας πράως διαλέγεσθαι· καὶ τοῖς ἐντυγχάνειν κατὰ σπουδὴν βουλομένοις προστάξαι ἐπανέλθειν· καὶ μηδὲν ὧν πράττει ὁμολογῆσαι ἀλλὰ φῆσαι βουλεύεσθαι.

Translate into Greek prose :—

All attempt at resistance now ceased. The fate of the Inca soon spread over town and country. Every man thought only of his own safety. Even the soldiery encamped on the adjacent fields took the alarm, and learning the fatal tidings were seen flying in every direction before their pursuers, who in the heat of triumph showed no touch of mercy. At length night, more pitiful than man, threw her friendly mantle over the fugitives, and the scattered troops of Pizarro rallied once more at the sound of the trumpet in the bloody square of Caxamalca.

Translate into Greek verse :—

Forsake me not thus, Adam! Witness, Heaven,
What love sincere, and reverence, in my heart
I bear thee, and unweeting have offended,
Unhappily deceived! Thy suppliant
I beg and clasp thy knees: bereave me not
Whereon I live,—thy gentle looks, thy aid,
Thy counsel, in this uttermost distress!

LATIN.

Examiner, Professor LEWIS.

Subject for a Latin essay—

Nihil est agricultura melius, nihil uberius, nihil dulcius.

CICERO.—*De Officiis*, lib. I., c. 42.

Appendix D.

Scholarship Examinations.

Translate into Latin verse:—

He first the taste of flesh from tables drove,
And argued well, if arguments could move,—
O mortals! from your fellows' blood abstain,
Nor taint your bodies with a food profane;
While corn and pulse by nature are bestowed,
And planted orchards bend their willing load;
While laboured gardens wholesome herbs produce,
And teeming vines afford their generous juice;
Nor tardier fruits of cruder kind are lost,
But tamed with fire, or mellowed by the frost.

II.—MODERN LANGUAGES, LITERATURE, AND HISTORY.

The English Language and Literature.

Examiner, Professor Armstrong.

1. Describe what appear to have been the effects of the introduction of printing on the English language.

2. Write a brief abstract of the narrative portion of Wordsworth's *Excursion.*

3. Compare the verse of Coleridge with that of Shelley; point out what appear to you to be its salient characteristics, and illustrate your criticisms by examples.

4. Compare the conduct of the story of *Christabel* (as far as it goes) with that of *Marmion*, as an illustration of the genius of the authors respectively.

5. Explain the moral purport of the *Ancient Mariner.*

6. Trace the course of Childe Harold's wanderings as described in the Fourth Canto of the poem.

7. Point out those passages of *Childe Harold* for the spirit (if not the thoughts) of which Byron seems to have been indebted to the influence of Shelley.

8. Name the several poets, besides Shelley, traces of whose influence are apparent throughout the writings of Lord Byron.

9. Write out a brief analysis or argument of Shelley's *Adonais;* describe the occasion of the poem, and give an account of the life and writings of Keats.

10. Name the poets who were intimately associated with Wordsworth, Byron, and Shelley, respectively; name the chief poems, and characterize the genius of each.

11. Analyze the prose style of Charles Lamb.

12. Give a brief account of one of the following essays of Lamb:—(*a*) "The Artificial Comedy of the Last Century"; (*b*) "The Genteel Style in Writing"; (*c*) "The Barrenness of the Imaginative Faculty in the Productions of Modern Art."

Modern History.

Examiner, Professor Armstrong.

1. Describe the events of the French Revolution to the flight of Louis XVI.

2. Sketch briefly the characters and early history of Mirabeau and Lafayette.

3. Give an abstract of the defence set up on Louis's behalf by his counsel.

By whom was the defence conducted?

4. Sketch, in outline, the chief events in the career of Napoleon to the victory of Marengo.

5. Give an account of the battle of Austerlitz, and its immediate results.

6. Describe briefly Napoleon's Russian Campaign.

7. Sketch the principal domestic events in the history of England during the reign of George IV.

8. Examine the influences of the Revolutionary movement on the contemporary literature of England.

Modern Languages.

Examiner, Professor De Vericour.

(See Literary Scholarships of Second and Third Years, p. 94, for this Paper.)

Natural Philosophy.

Examiner, Professor England.

1. Two weights connected by a fine string rest on a rough vertical arc of a circle on which the string lies: prove that the angle subtended at the centre by the distance between the limiting positions of either weight is $2 \tan^{-1} \mu$.

2. Find the centre of gravity of the area included by the curve $r = a(1+\cos\theta)$.

3. Prove that a uniform circular motion is equivalent to two simple harmonic motions at right angles to each other.

4. Prove the principle of equable description of areas by a particle acted on by a central force.

5. Explain the phenomenon of the rainbow.

6. Find the sun's declination when it rises at the N.E. point in a given latitude.

7. It is required to construct an achromatic lens of given focal length: knowing the dispersive powers of the component lenses, determine their focal lengths.

8. Assuming the second, gramme, and centimetre as the units of time, mass, and length, determine the unit quantity of electricity and unit difference of potential.

9. A magnetic needle is suspended by silk fibres (as in Coulomb's balance); show how to arrange it, that there may be no torsion when the needle lies in the magnetic meridian.

10. Give Fresnel's construction for the paths of the ordinary and extraordinary rays in a uniaxal crystal.

11. How is it shown that in some crystals, heat is propagated in different ways, in different directions.

12. Explain on the undulatory theory of light the formation of bands, when a small pencil of light passes through a narrow aperture.

VII.—Natural History.

Botany and Zoology.

Examiner, Professor Reay Greene.

1. What British phænogams belong to the category of coloured parasites? Refer these plants to their respective families.

2. Indicate the modifications which the perianth undergoes within the limits of the order Alismaceæ (including Butomeæ and Juncagineæ).

Appendix D.

Scholarship Examinations.

3. Describe the formation of lobed and compound leaves. Account for such cases as those of the maple, lupin, and strawberry.

4. Describe the spore-fruit of Marsilia, comparing it with that of Isoëtes.

5. Give an account of the structure and life-history of any well known ascomycetous fungus.

6. Compare the shell of Teredo with that of an ordinary bivalve.

7. With what appendages of a hexapod insect are the legs of a spider homologous?

8. Name those families of physostomous fishes which have representatives in the fresh-waters of Ireland.

9. Contrast the skulls of amphisbænians with those of (*a*) typical snakes and (*b*) ordinary lizards (=Kionocrania).

10. Describe the characteristic modifications of the skeleton of the limbs in the kangaroos and bandicoots (Peramelidæ).

School of Engineering.

Sessional Examinations.

SESSIONAL EXAMINATIONS.—FIRST YEAR.

(See Sessional Examinations in Arts, pp. 75, 76, for the papers in Mathematics; p. 86 for the paper in Chemistry; p. 87 for the paper in Mineralogy, Geology, and Physical Geography; and p. 74 for the paper in Modern Languages.)

Geometrical Drawing.

Examiner, Professor Jack.

1. Describe a circle to touch two others, one of them at a given point.

2. Given the axes of an ellipse; construct it by points.

3. What is meant by the projections of a point and a curve on a plane?

4. Given the projections of a line and the traces of a plane; find the traces of a plane passing through the line and perpendicular to the plane.

5. Construct the length of the line joining two points whose projections are given.

6. Construct the projections and real size of the section by a plane perpendicular to the vertical place of reference of a right circular cone with its axis vertical, the plane being parallel to one side of the cone.

7. The sides of a triangle are 3, 5, and 7 inches, it lies in a plane making 20 degrees with the horizontal, the 3-inch side makes 15 degrees with the trace of the plane; find its horizontal projection.

8. Find the projections of the intersection of a right circular cylinder having its axis vertical and a sphere.

9. The distance of the picture is 12 inches, a line lies in a vertical plane perpendicular to the picture, and makes 30 degrees with the horizontal; find its vanishing point.

10. From a given point in the perspective of this line show how to set off the perspective of a given length by a construction in the picture.

SESSIONAL EXAMINATIONS.—THIRD YEAR.

Mixed Mathematics.

Examiner, Professor England.

1. If P′, P″, &c., be a system of parallel forces, the distances of the points of application of which, from a given plane, are respectively x, x', x'', &c.; if R be their resultant, and $\bar{x}$ the distance of its point of application from the same plane, prove that

$$R\bar{x}=Px+P'x'+P''x''\,dx.$$

2. Find the distance of the centre of gravity of the frustum of a right cone from its base, in terms of its height and the radii of its ends.

3. Investigate the equation of the common catenary.

4. A body is projected at a given angle with a given velocity; show how to determine its path and its velocity when moving in a given direction.

5. Find the centre of pressure of a triangle whose vertex is in the fluid and base horizontal.

6. Show how to determine the meridian of a place by means of equal altitudes of the sun.

7. A body falls from an infinite distance toward a centre of force, the force varying inversely as the square of the distance; find its velocity at a given distance from the centre.

8. Find the law of force which will cause a body to move in an ellipse of which the centre is the centre of force.

9. In getting time by means of the sun's altitude, calculate the error in time arising from a given small error in altitude.

Applied Mechanics.

Examiner, Professor England.

1. If 5 cwt. of a material are drawn from a depth of 100 fathoms by a rope, each foot of which weighs ·67 lbs., how many units of work are expended in raising it?

2. A bar, whose length is l and section s, is gradually elongated by a length e; if k be its modulus of elasticity, find the work expended on its elongation.

3. A rectangular mass of iron rests on an inclined plane of oak, with one diagonal of its base parallel to the intersection of the plane with the horizon; it is on the point of slipping down, and also of overturning; if its base be 2 feet square, what is its height, the co-efficient of friction between it and the plane $= \cdot 65$?

4. Investigate the condition of equilibrium of a screw, taking account of the friction of the thread and of the end of the screw.

5. Determine the equation to the line of resistance in a river wall whose specific gravity is 2·6 and thickness 4 feet, and which sustains the pressure of water whose surface is on the level of the top of the wall.

6. Calculate the moment of inertia of a rectangular parallelopiped whose edges are a, b, c, with regard to an axis passing through its centre of gravity, and parallel to the edge c.

7. A body rotating round a fixed axis has in a given interval its angular velocity changed from ω to ω', find the number of units of work done upon it in that interval.

8. A thin rod 3 feet long turns round one end from an angle of 45° with the horizon, find its angular velocity when it has reached a horizontal position.

9. Prove that in the impact of non-elastic bodies there is a loss of *vis viva* proportional to the square of their relative velocity.

Civil Engineering.

Examiner, Professor Jack.

First Paper.

1. Describe the method of carrying on the works in a deep railway cutting, noting the kind of earth-waggons used, and how the roadway is arranged.

Appendix D.

Sessional Examinations.

2. Sketch the cross section of the double-headed rail, and the manner in which it is connected with the sleepers.

3. In a lattice girder bridge intended to carry a double line of railway over a span of 80 feet sketch the construction that you would adopt for the top and bottom members and for the diagonals subject to large compressive and large tensile forces.

4. Describe the screw pile piers sometimes used in bridges, and in what circumstances they are employed.

5. For what purposes are large concrete blocks employed? How are they made? What sizes have been used?

6. Describe the different kinds of masonry.

7. Describe the general arrangements of the firebox, firebox-shell, and boiler of a locomotive.

8. Describe the construction of an eccentric. Why are two necessary in connexion with each cylinder of a locomotive?

9. What are the methods employed in the locomotive for producing a draught in the fire, and for obtaining a large heating surface?

10. Give an account of the general arrangements of the Armstrong hydraulic machinery, and the use that is made of it.

Second Paper.

1. What is meant by tempering steel?

2. Describe the action of the planing machine.

3. If you wished to measure the quantity of water flowing in a stream by means of a V-shaped weir, state the precautions you would take as regards the measurements and the formula you would use, explaining how it has been established.

4. How is it that the length of a piece of iron, subject to a force of compression in the direction of its length, has to be taken into account when you are estimating its strength, but need not be considered if the force be one of tension?

5. What is the neutral axis of a beam? How would you find its position? Illustrate by the case of a double-flanged cast-iron beam.

6. Show that a solid circular beam may have its weight considerably lightened without reducing its strength to the same extent, by boring out the centre.

7. Investigate an expression for the deflection at the end of a beam of constant section fixed at one end and loaded uniformly along its length.

8. In a continuous girder crossing several spans show that if the pressure on the points of support be known the points of inflection can be found.

9. In a girder braced as in the accompanying sketch, supported at the ends and traversed by a train of uniform density, discuss the stresses produced in the diagonals.

10. Describe the form of structure adopted in the wrought-iron gate of a lock.

Scholarship Examinations.

SCHOLARSHIP EXAMINATION.—FIRST YEAR.

(See papers for First Year's Science Scholarship Examination in the Faculty of Arts, p. 95.)

SECOND YEAR.

(See papers: 1, in *Mathematics*, Science Scholarship Examination of Second and Third Year, in the Faculty of Arts, p. 97; 2, in *French*, Literary Scholarship Examination of the Second and Third Years, in the Faculty of Arts, p. 94; 3, in *Chemistry* the paper was the same as that for the Scholarship Examination of the Second Year in the Faculty of Medicine.)

Geometrical Drawing.

Examiner, Professor Jack.

1. Given span and rise (small) of a circular arc, construct it by points. Prove your method.

2. Given one of the projections of a point in a plane whose traces are given, find the other.

3. Find the traces of a plane passing through a point whose projections are given, and parallel to another plane whose traces are given.

4. Find the angles which a plane given by its traces, makes with the planes of projection.

5. Given the horizontal trace of a cone and the projection of its vertex, find the traces of a plane touching the cone and passing through a point whose projections are given.

6. A piece of timber $5'' \times 2'' \times 3'$ stands on the edge which is $2''$ long, this edge makes $25°$ with the ground line, and one of the long edges makes $30°$ with the vertical. Draw the projections of the piece of timber.

7. Find the shadow it would cast on the horizontal plane.

8. Find the projections of the curves of intersection of a vertical right circular cone, and a horizontal cylinder not parallel to the vertical plane of reference.

9. Find the perspective of the line in the figure shown to you, and divide it into three equal parts by a construction in the picture.

THIRD YEAR.

Natural Philosophy.

Examiner, Professor England.

N.B.—The following paper (Questions 1 to 10) were common to candidates for the Engineering Scholarships of the third year, and Medical Scholarships of the second year.

1. A body which weighs w grains in air, weighs w' in water, and w'' in another liquid, show how to find the specific gravity—

a. Of the body.

b. Of the liquid.

2. Explain the construction and method of using Daniell's dew-point Hygrometer.

3. A flame being placed at a distance of twenty inches from a convex lens, a distinct image of it is formed on a screen at five inches on the opposite side of the lens, what is the focal length of the lens?

4. Explain the formation of the brilliant colours observed when a very thin film of oil floats on water.

5. Describe fully the phenomena of capillary action which take place when a small cylindrical tube is immersed—

a. In a liquid which moistens the tube.

b. In a liquid which does not moisten it.

6. How would you charge a gold leaf electroscope with positive electricity by induction?

7. State some experiments which prove that bodies in passing from the solid to the liquid state absorb heat, but in passing from the liquid to the solid give out heat.

8. How by means of a dipping needle could you determine the magnetic meridian of a place?

9. Explain the nature of the vibrations of the air in an organ pipe when sounding, and the relation which subsists between the tones of an open and closed pipe of the same length.

10. Show that when a falling body is projected vertically upward it has the same velocity in passing through the same point both in its upward and downward motion.

Appendix D.

Scholarship Examinations.

N.B.—The following questions were given only to Candidates for the Engineering Scholarships.

1. Prove that the sum of the moments of two forces acting in the same plane about any point in that plane, is equal to the moment of their resultant with regard to the same point.

2. Find the position of equilibrium of a heavy beam resting on two smooth inclined planes.

3. Prove that the time of falling down any chord of a vertical circle terminating at its lowest point, is equal to the time of falling down the vertical diameter.

4. A heavy particle has simultaneously impressed on it two velocities, one vertically upward, the other horizontal, find its position at the end of t seconds after.

Geology and Mineralogy.

Examiner, Professor Harkness.

1. What is false bedding? From what does it originate?
2. Name the principal kinds of Plutonic Rocks and their composition.
3. What is the nature, and what is the origin of Carrara Marble?
4. What is the position of Woolhope Limestone? What are its characteristic fossils?
5. Where, in Ireland, do Upper Silurian Rocks occur?
6. What is the position of the Clymenia Limestone?
7. What deposits in Ireland represent the Mill-stone grits?
8. What important member is absent from the English Trias?
9. What is the position of the Fullers-earth beds? Where do they occur?
10. What is the nature and position of the Woolwich and Reading series?
11. What is the composition of *Apatite*? To what system of crystals does it belong, and in what form is it usually crystallized?
12. To what family of minerals does *Labradorite* belong? What is its composition?

Surveying, Levelling, and Mensuration.

Examiner, Professor Jack.

1. Describe the method of ascertaining the acreage of a survey from the field book.
2. Describe the construction of the planimeter.
3. A length marked 7′ 8″ on a drawing is found to measure 1·72 inches, construct a scale of feet.
4. The ordinates of a curve taken ½-inch apart are 0, ·37, ·55, ·70, ·84, ·92, ·96, ·99, ·88, ·86, ·76, ·49, 0, find the position of the centre of gravity of its area.
5. Describe the checks on a closed traverse survey, and the method of dealing with a small error.
6. Describe the method of finding the latitude of a plane from the meridianal altitude of the sun obtained by the theodolite.
7. In setting up a transit theodolite to take a vertical angle, how can you, within certain limits, get rid of any index error?
8. How would you ascertain whether the horizontal axis of a transit theodolite was at right angles to the vertical axis?
9. Practical examinations with the level.

Faculty of Law.

SESSIONAL EXAMINATIONS—FIRST YEAR.

Real Property.

Examiner, Professor O'Shaughnessy.

1. What is comprised within the term "Messuage"? What is a tenement?

2. Why is a life estate an estate of freehold?

3. What right has every tenant for life with respect to cutting timber? What is "voluntary waste"? What is "permissive waste"?

4. What was the effect of a fine on an estate tail? Why were such suits so called?

5. How does a tenant in fee-simple hold lands? To what extent may an estate in fee-simple be aliened?

6. Can an infant hold lands? What is the difference between the conveyances of infants and of idiots?

7. How far does the liability of fee-simple estates in the hands of the heir or devisee extend as to the debts of the deceased tenant? Why are assets by descent so called?

8. If a feoffment be made to A and his heirs to the use of B and his heirs, what is the result as to A?

If such a feoffment were made before the Statute of Uses, what would A have had?

9. When does a tenancy at will arise? What is a tenancy by sufferance?

10. What, in the contemplation of Equity, is a mortgage? What, in Law, is a mortgage?

THIRD YEAR.

English Law.

1. What are the two species of remedies which arise from the joint act of the parties? Explain what each of them is, and what it effects?

2. Explain the reason of the doctrine of Retainer giving a creditor of him of whom he is executor a remedy by the mere act of law.

3. Under what circumstances does redress by the operation of Remitter arise?

4. What are the two species of jurisdiction belonging to the Court of Exchequer? State what are its operations in each.

5. In what court is the style adopted, "*coram ipsâ regina*"? Explain the reason, and mention some incidents of its peculiar jurisdiction.

6. Mention the maxims which illustrate the principle of the Statute of Limitation.

7. What is the nature of the plea called an Avowry? In what kind of action is it used? Wherein does the course of pleading in that action differ from that in other actions.

8. What is the view which the Law of England takes of self-murder?

9. How has Sir Edward Coke defined murder?

10. Define what is forgery at Common Law. As regards writings, mention some of the incidents constituting the offence. What is the rule as to evidence of handwriting in such cases?

11. For what is a Writ of Certiorari commonly granted? In what stage of the proceedings may the writ be had?

12. On what is a plea in abatement founded? Why does no advantage accrue to a defendant by reason of pleading a misnomer in abatement?

Appendix D.

Sessional and Prize Examinations.

Faculty of Medicine.

SESSIONAL AND PRIZE EXAMINATIONS.

Experimental Physics.

Examiner, Professor England.

1. If the specific heat of copper be ·09, and 300 grains of copper at 100° are immersed in 500 grains of water at 10°, find the resulting temperature.
2. What is meant by the mechanical equivalent of heat?
3. When is the image of an object formed by a concave reflector real, when virtual?
4. How is polarized light distinguished from ordinary light?
5. If an organ pipe gives a note of 512 vibrations per second in air, what note will it give in hydrogen, the density of hydrogen being assumed as $\frac{1}{16}$ that of air?
6. A weight thermometer contains 460 grains of a liquid at 0°, and 450 grains at 20°, find its mean co-efficient of expansion for 1°.
7. Find the specific gravity of a body which weighs 60 grains in air and 35 grains in a liquid, whose specific gravity is ·8.
8. Two parallel forces of 10 and 12 respectively act in opposite directions at 40 inches apart, find the position of their resultant.
9. Find the acceleration produced by a pressure of 1 lb. moving a mass of 10 lbs.
10. Explain the principle of the gold leaf electroscope.
11. Give Ampere's rule for determining the direction in which a magnetic needle is deflected by a current.
12. What is the law of refraction of light? What is meant by double refraction?

Chemistry.

(See for this Paper, Sessional Examination Papers in the Faculty of Arts, p. 86.)

Anatomy and Physiology.

Examiner, Professor Charles, M.D.

[In addition to the oral class examinations and the questions 1 and 2 (to which written answers were given by every member of the class after the Christmas recess), First Year Students were required to attempt questions 3, 4, 6, 7, and 12; Second Year Students 4, 6, 7, 8, 9, and 12; and Third and Fourth Year Students 5, 8, 9, 10, 11, and 12.]

3. Give an account of the minute structure of human dentine, and mention the chief varieties of it which are met with in living and extinct animals.
4. Describe carefully the corpuscles and lymphatics of connective tissue.
5. Give an account of the latest views as to the microscopic structure and development of serous and synovial membranes.
6. Describe concisely all the experiments (shown in the class) to demonstrate (1) the properties of glycogen, and (2) the properties and uses of saliva, bile, and pancreatic juice. State also the different steps of the process by which you would prepare pure glycogen in quantity.
7. How does Küss classify reflex actions? What are Pflüger's laws of reflex action? Give a brief description of the experiments (shown in the class) by which these laws are exemplified.
8. Discuss Hermann's theory of the function of the auricles. Give a

brief description of his model heart-pump, and show how he illustrates his views by it. State also what is meant by "negative pressure," and explain how it influences the circulation.

9. Define the term "horopter;" and describe minutely (1) the ciliary muscle, (2) the macula lutea, and (3) the membranous semicircular canals.

10. Describe the development of (1) enamel, (2) the eye, and (3) the alimentary canal.

11. Give a summary of what is known regarding the functions of the ganglia at the base of the brain, and describe the experiments by which these results have been ascertained. What are the views of Carpenter and Setschenow?

12. Name the specimens under the microscopes numbered 1–8, and the moist preparations numbered 9–16. State concisely the principal features presented by each.

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1. Describe minutely the microscopical characters of striated muscle, referring specially to the views of Bowman, Kölliker, Engelmann, and Schäfer.

2. Describe carefully the microscopical characters of unstriated muscle, referring particularly to the views of Kölliker, Engelmann, and Ellis.

Practical Anatomy.

Examiner, Professor Charles, M.D.

[In addition to making a Dissection for three hours, First Year Students are required to answer questions 1, 3, 4, 7, and 8; Second Year Students, 1, 3, 6, 7, 8, and 10; Third and Fourth Year Students, 2, 5, 6, 9, 10, and 11.]

1. Describe minutely (1) the sphenoidal process of the palate, (2) the perpendicular lamella of the ethmoid, (3) the inner surface of the ilium, and (4) the proximal ends of the second and fourth metatarsal bones.

2. Describe the ossification of the fibula, carpus, and clavicle.

3. Give a detailed account of the attachments, relations, and use of each of the ligaments connected with the ilium and ulna respectively. By what method would you expose each?

4. Trace the peritoneum horizontally (1) on the level of a line half an inch below the liver, and (2) on a level with the umbilicus. State also the exact relations of the peritoneum to the descending colon, rectum, duodenum, and transverse colon respectively.

5. Describe carefully the successive steps of the dissection by which you would expose all the ligaments attached to the occipital bone and upper three cervical vertebræ—the soft parts having been previously removed. (Only a general description of the ligaments themselves to be given.)

6. Describe accurately the attachments, relations, and nervous supply of the following muscles:—The flexor brevis pollicis pedis, the multifidus spinæ, coccygeus, and mylohyoid.

7. Give a minute description of the course, relations, and branches of the descending thoracic aorta and the external iliac artery.

8. The abdominal cavity having been opened, describe, in detail, the method you would adopt in order to demonstrate completely the anatomy of the alimentary canal from the œsophagus to the anus. (No description of the parts themselves required.)

9. Give a brief account of the synovial membranes of the hand and foot.

Appendix D. Sessional and Prize Examinations.

10. Enumerate in order the cutaneous nerves crossed by each of the following lines :—One around the arm, two inches below the acromion process ; another around the middle of the thigh ; a third around the abdomen, on the level of the umbilicus ; and a fourth around the head, above the external ear. Mention also the portions of the head which are *not* endowed with sensibility by the fifth cranial nerve.

11. Describe concisely the following parts of the encephalon :—(1) the inferior vermiform process ; (2) the annectent convolutions ; (3) the fasciculus uncinatus ; (4) the posterior medullary velum ; (5) the fillet ; (6) the fascia dentata ; and (7) the corpora geniculata. How would you bring into view, in an entire brain, the four parts last named ?

Materia Medica and Therapeutics.

Examiner, Professor O'Keeffe.

Written Examination.

1. Contrast the action of a tonic with that of an alterative. What explanations have been given of the mode of action of medicines of these classes ? When are they indicated and contra-indicated ? Name the most useful drugs in each group, and illustrate (by a prescription) the mode of administration, 1st, of some preparation containing the active principles of Cinchona bark ; 2nd, of an arsenical preparation.

2. What is your opinion of the therapeutic and dietetic value of alcoholic beverages, giving the reasons on which such opinion is founded ?

3. What is the therapeutic action of preparations containing digitalis ? Illustrate, by a prescription, the mode of administration of this drug.

4. What are the physiological and therapeutic actions of Belladonna and Calabar bean respectively ? Doses and modes of administration of each ?

5. How are Morphia and Apomorphia prepared ? How do they differ in their therapeutic action ? Give mode of administration of each.

6. Name and classify the Pharmacopœial preparations of mercury. State the preparation, uses, and mode of administration of Calomel. How would you ascertain its freedom from the presence of corrosive sublimate ?

7. What are the indications for the exhibition of antacids ? Name the most important medicines in the class. Select one, and give its dose and mode of administration.

8. What do you consider an average dose for an adult of the undernamed :—

Hydrocyanic acid, Castor oil, Tincture of Aconite, Salicylate of Soda, Fowler's Solution, Acetate of Lead, Sulphate of Magnesia, Chloral hydrate, Liquor Strychniæ.

State very briefly the principal indication for each.

9. What are the constituents of the undernamed pharmacopœial preparations ?—

Confectio Scammonii, Emplast. Ferri, Ext. Ergotæ Liq., Mist. Cretæ, Pilula Cambogiæ Co., Pulvis Antimonialis, Pulvis Kino Co., Spiritus Ammoniæ Aromaticus, Tinctura Camphoræ Co.

Give average dose of each.

Oral Examination.

Name each of the specimens marked 1, 2, 3, 4, 5, 6. Give the source, therapeutic action, and dose of each.

Practice of Physic.

Examiner, Professor O'Connor.

1. How would you form a diagnosis between gout and rheumatism?
2. How distinguish between scorbutus and purpura, stating the cause and effects of each?
3. What are the principal forms of continued fever and the distinguishing marks of each?
4. What forms of cerebral disease are most prevalent at the different periods of life and the cause of such difference?
5. What are the internal and external causes of blood-poisoning?
6. State some of the effects of chronic alcoholism.
7. What are the symptoms of ataxie locomotrice through its entire course?
8. Why are hepatic diseases more common in tropical than in temperate climates?
9. What is the difference in the appearance of abscess in the liver produced by parenchymatous inflammation and those proceeding from phlebitis? State the cause of such difference.
10. Enumerate and explain the causes of hæmoptoe?
11. What is the *modus operandi* of the various causes of hypertrophy of the heart?
12. Describe the appearance of the lung in a case of arrested tubercle.

Surgery.

Examiner, Professor Tanner.

1. Describe the changes which take place, during the process of inflammation, in the blood vessels, and also the alterations of tissue, with especial reference to the anatomical constitution, and functions, of the vaso-motor nerves.
2. What are the prevailing doctrines, as to the origin of pus, its varieties, constituents, and also the pathology of cervical abscesses.
3. Describe the causes of mortification, and when amputation is indicated.
4. Relate the causes, symptoms, duration, temperature, and treatment of wound fever.
5. What classification of wounds has been made, and the different methods by which their healing is accomplished?
6. Give the different kinds of aneurism, their pathology, causes, prognosis, and various methods of treatment.
7. How are fractures repaired, and what are the methods of treatment?
8. Describe in detail the operations for the cure of stone in the male bladder, also the indications for their adoption, and the different kinds of lithotrity, and methods of catching the stone.

Midwifery.

Examiner, Professor Harvey.

1. Give a description of, and detail the points which are requisite to constitute a well-formed pelvis in the human female. What are the most frequent forms of departure from this standard?
2. Describe the form, structure, and relations of the oviduct in the rabbit. What state of parts, occasionally found in the human subject, does this represent?

Appendix D.

Sessional and Prize Examinations.

3. Describe the principal phenomena which take place in the development of the membrana decidua.

4. In the placenta, do the streams of the fœtal and maternal circulations come into absolute contact? Describe how they are circumstanced with regard to each other.

5. Can we, under any circumstances, predict the precise day on which a woman's delivery will take place, and if not, why not?

6. In what respects does the gestation of marsupial animals differ from that of the higher mammalia?

7. Under what forms is rigidity of the os uteri found to exist in the first stage of labour? What are its causes; and how is it to be treated?

8. Under what circumstances is the child born with face to pubis? Mention the course which the head takes; and the character of the labour in this case.

9. A woman is in labour: the membranes have just given way, and a shoulder presents; os uteri very little dilated. Describe minutely your management of the case.

10. What are after-pains? In what patients do they chiefly occur? Give their pathology, and the principles of their prevention and treatment.

Medical Jurisprudence.

A.—Medical Part.

Examiner, Professor O'Keeffe.

a. Written Examination.

1. To what extent is the chemical test available in examining a stain (suspected to be blood) on an article of clothing, wood, or iron?

How would you proceed in applying the test?

To what fallacies is it liable?

2. Is there any difference, in a medico-legal sense, and, if so, what, in the expressions "born alive" and "lived to breathe"?

3. What importance may be attached in a criminal prosecution for murder to the medical evidence as to the presence or absence of rigor mortis? On what circumstances will the time of appearance, and the duration, of this condition, usually depend.

4. What appearances may be presented, externally and internally, in the body of an individual killed by hanging? How do you account for the different signs observed in different cases?

5. Define insanity. Under what circumstances are you justified in placing an insane person under restraint? What forms are necessary in committing an insane person, (1) to a public, (2) to a private asylum?

6. Death has been caused by a gun-shot injury. What circumstances would lead you to conclude that the wound was caused accidentally, homicidally, or suicidally?

7. The viscera of an individual supposed to have been poisoned, are submitted to you for examination (without any history of symptoms, &c.); how would you proceed with such examination?

8. What diseases simulate the symptoms of poisoning by tartar emetic, arsenic, and morphia, respectively? On what would you base your diagnosis in each case?

9. Give an account of any case where you have seen the method of dialysis employed in the separation of a poison from an organic mixture, and the steps subsequently adopted for its identification.

b. Practical Examination.

1. Obtain the characteristic crystals from the blood-stain before you.

2. Name the poisons dissolved in the bottles marked 1, 2, 3, 4. State the symptoms produced and the post-mortem appearances observed in a case of death caused by any one of them. State also the smallest fatal dose of each.

3. What conclusions would you arrive at from an examination of the bones marked A, B, C, as to the age and sex of the bodies from which they have been taken?

4. Two pieces of cloth, P and Q, are stained, one with ordinary, the other with menstrual blood. Say which is which.

5. What is the probable intra-uterine age of the fœtus placed before you?

B.—LEGAL PART.

Examiner, Professor O'SHAUGHNESSY.

1. How is the crime of Rape defined in law? What must be proved in order legally to establish the crime?

2. How does the law regard one who has attempted suicide, and failed in its perpetration?

3. Under what circumstances may it be argued that a policy of life insurance should be forfeited by the suicide of the person whose life was insured?

4. What are the circumstances which will justify a medical practitioner in applying restraint to a person on the grounds of insanity?

5. Explain the reasons why the plea of insanity of one accused of a crime is admitted as a defence? By whom is the question decided?

SCHOLARSHIP EXAMINATIONS.—FIRST YEAR.

(See Papers for Literary and Science Scholarship Examinations in the Faculty of Arts, pp. 88, 95.)

SECOND YEAR.

(For the Paper in Natural Philosophy, see Engineering Scholarship of the third year, p. 105.)

BOTANY AND ZOOLOGY.

Examiner, Professor REAY GREENE.

1. Name those British families of Calycifloræ in which the ovary is inferior. Draw up a brief analytical table, showing the characters by which these families may readily be distinguished from one another.

2. Describe the spore-fruit of Sphagnum, contrasting it with that of other mosses.

3. In what vegetable and animal structures has the phenomenon of free cell-formation, as distinguished from ordinary cell-division, been observed?

4. Write concise definitions of the principal groups of cephalophorous mollusks, noting the pteropods (excluding Dentalium), the heteropods, the branchiate gasteropods, and the pulmonate gasteropods.

5. Enumerate and refer to their proper regions the splint-bones of the crocodile's skull.

Appendix D.

Scholarship Examinations.

Anatomy and Physiology.

Examiner, Professor Charles.

1. Give a concise account of the observations and experiments by which it can be shown that contractility is a function inherent in muscular fibre and independent of nervous influence.

2. Describe the microscopical characters of (*a*) a connective tissue corpuscle; (*b*) a fat cell; (*c*) a bone corpuscle; (*d*) a nerve cell; and (*e*) a white blood corpuscle.

3. What is the fundamental structure of a gland? What is a lymphoid organ? Give a recent classification of glands with as many examples of each class as possible.

4. Describe the arrangement of the muscular fibres of the heart. State the exact mode of action of the mitral and tricuspid valves.

5. Give a brief account of the chemical characters of chondrin, globulin, peptone, gelatin, and glycogen.

6. Name the specimens under the microscopes numbered 1–8, and the moist preparations numbered 1–5.

THIRD YEAR.

Anatomy and Physiology.

Examiner, Professor Charles.

1. Describe carefully the action of water, acids, alkalies, electricity, warmth, and gases on blood corpuscles. By what arrangement would you make the observation in each case?

2. Give a minute account of the structure of arteries. How do arteries influence the circulation?

3. Describe minutely the microscopical appearances of a transverse section of a hair and its follicle made through the middle of the hair papilla. If possible, illustrate your description by a diagram.

4. By what means would you demonstrate the electric currents of muscle and nerve? What is meant by the electrotonic condition of a nerve, and how is it influenced by the passage of a constant electrical current?

5. Give a full account of the structure of the olfactory region.

6. Name the specimens under the microscopes numbered 1–8, and the moist preparations numbered 1–5.

Practical Anatomy.

Examiner, Professor Charles.

1. Give a concise account of the classification of joints described in the lectures of last Session. Enumerate all the examples of each order.

2. Describe carefully the movements of flexion, extension, adduction, abduction, inversion, and eversion of the foot. At what joint or joints do they take place? Group together the muscles which produce each movement, and state the nervous supply of every muscle you name.

3. Describe the structure, relations, dimensions, and development of the Eustachian tube. Give the attachments and uses of the muscles attached to it. What views are entertained as to its function?

4. Describe completely the dissection of the thorax. [No description of the parts themselves required.]

5. When the subclavian artery has been ligatured in the third stage, by what means is the circulation in the upper extremity of that side maintained?

6. Name the specimens numbered 1–10, and say to which side of the body each belongs.

Materia Medica and Therapeutics.

Examiner, Professor O'Keeffe.

1. How are astringents said to act? Name the most useful remedies in this class. Select any one and give its chemical (or botanical history), physiological, and therapeutical actions, dose, and a prescription showing its mode of administration.

2. Contrast the physiological actions of opium, bromide of potassium, and chloral hydrate, and point out the principal therapeutic indications for the exhibition of these drugs alone, or combined with others. Illustrate by a prescription.

3. The physiological effects of preparations of mercury? therapeutical uses? Name the preparations of mercury as given in the B. P. Select two of the most useful and give their chemical history, doses, and modes of administration in the form of a prescription.

4. How would you classify cathartics?

Name the principal drugs in each division.

Select one in each. Give its botanical (or chemical) history, dose, and mode of administration.

5. Name each of the six drugs placed before you. Select any one and give its physiological actions and therapeutic indications.

6. Name each of the six botanical plants (recent) placed before you. Give the active principle or principles of each. Pharmacopœial preparations of each, and, if active principle be an alkaloid, its mode of separation.

FOURTH YEAR.

Anatomy and Physiology.

Examiner, Professor Charles, M.D.

1. Describe the microscopical characters of a vertical section of the cortex of the brain. Wherein does it differ from a corresponding section of the cerebellum?

2. What changes does the blood undergo in passing through the capillaries of (1) the intestines, (2) the liver, (3) the lungs, and, (4) the kidneys?

3. Give a concise account of the development of the lungs and the brain. Illustrate your description by a reference to the permanent condition of these organs in the lower animals.

4. By what means have the functions of the following parts of the nervous system been determined:—(1) The anterior and posterior roots of the spinal nerves; (2) the spinal cord; (3) the cerebellum; (4) the ganglia at the base of the brain; and (5) the cerebrum?

5. Give a description of the intra-ocular apparatus for effecting accommodation.

6. Name the specimens under the microscopes numbered 1–8, and the moist preparations numbered 1–5.

Practical Anatomy.

Examiner, Professor Charles, M.D.

1. Describe the ossification of the sacrum, sphenoid, humerus, and fibula.

2. (*a.*) Enumerate the joints whose opposed surfaces are flattened, partly articular and partly non-articular, and the ligaments both external and

Appendix D.

Scholarship Examinations.

interosseous. (*b.*) Name also the joints in which the osseous surfaces of the articular cavities are smaller than those of their corresponding heads. By what means is the extent of the articular cavities increased in such cases?

3. Describe the dissection you would make in order to expose, from the perineum, the prostate gland. [No description of the parts themselves required.]

4. Give a detailed account of the veins of the pelvis.

5. How would you expose the spinal cord? Give a full account of its membranes, arteries, and veins.

6. Tabulate the branches of the fifth cranial nerve.

7. Name the specimens numbered 1–10, and say from which side of the body each was taken.

Pathology.

Examiner, Professor O'Connor.

1. What are the different forms presented by acute inflammation of the skin?

2. State the causes of dry gangrene, and its usual situation.

3. State the cause or causes of pyæmia, with an outline of its progress, and the difference between it and septicæmia.

4. What are the appearances of the fœces in different forms of diarrhœa, also in dysentery?

5. What are the causes and the pathological appearances in lobular pneumonia, and the ages most liable to this disease?

6. Specify the different causes of hepatic congestion, distinguishing acute from chronic.

7. Describe the appearance of the kidney in the different forms of Bright's disease, and the remote and immediate causes of this affection.

8. In what manner do emboli produce cerebral disease?

Surgery.

Examiner, Professor Tanner.

1. Describe pathologically the four great symptoms of inflammation.

2. Give the different means for arresting hemorrhage, including uncipression and forcipression, and describe the two chief methods of transfusion.

3. Explain the two classes of tumours, and the kinds into which the purely innocent, the sarcomatous, and carcinomatous are usually divided.

4. What are the four stages of gonorrhœa and the complications, and several methods of treatment?

5. What division has been made of diseases of the joints, their pathology and treatment?

6. What are the different kinds of calculi found in the male bladder, their symptoms, and the various operations for their cure?

7. Relate the history, varieties, and pathology of goitre, and the different methods of treatment, including the operation for its removal.

8. What are the causes of club foot, the several forms, and kinds of treatment?

9. What division has been made of the diseases of the ear? Give the pathology and treatment of each. Describe Politzer's method of opening the Eustachian tube.

Midwifery.

Examiner, Professor Harvey.

1. What is the fallopian tube? Describe its structure, its mode of connexion with other organs, and its functions. In what respects does it differ from other organs of a similar character? Can you explain how these peculiarities come to exist?

2. Enumerate the constituents of a vertebrate ovum. What is the earliest condition in which it is found to exist? Give the order of formation of its various parts up to the time at which the development of the embryo is ready to commence.

3. A woman in the first half of her pregnancy is seized with pain and uneasiness in the hypogastric and lumbar regions, and difficulty in passing water, accompanied by frequent desire to relieve the bladder. There is similar difficulty in evacuating the rectum; the distress increases, and is not relieved until efficient means are resorted to. What is the nature of the case, and how would you manage it?

4. You are called to a lady in the first stage of labour. There is no mechanical difficulty in the case; but the pains are slow and inefficient, and dilatation is proceeding very slowly. Upon what cause or causes may this state of things depend; how would you investigate them, and what remedial means may be necessary?

5. Detail the steps by which the face is brought to be the presenting part in labour. What positions is this presentation found to assume; and what is the prognosis generally in face cases?

6. A woman near her confinement of her twelfth child is suddenly seized with abdominal pain, which gradually becomes more severe; it is accompanied by a sense of great tension, and there is a circumscribed hardness and elevation of a part of the uterine tumour; with these symptoms there is a quick, weak, rapid pulse; cold, damp skin, faintness, and the usual symptoms of loss of blood: no hemorrhage from the vagina, nor labour pains; what is your view of the case, and what is necessary to be done?

Medical Jurisprudence.

Examiner, Professor O'Keeffe.

1. To what extent may the number, development, or other characters of the teeth assist in identifying a dead body?

2. Is it always possible to distinguish a wound inflicted after death from one produced during life? What conditions may render the diagnosis difficult?

3. The appearances in bodies after death by hanging, vary considerably. On what do these differences depend, and describe the most usual appearances?

4. You are called upon to examine a woman in a case of alleged concealment of birth. How would you proceed with your examination, and what special difficulties may present themselves?

5. A dark stain is found on the blade of a knife. To what causes may it be due? What precautions would you adopt in pronouncing whether it is or is not a bloodmark?

6. Ergot of rye in food has produced dangerous symptoms. What are they? How would you detect ergot in ergotized flour?

7. Contrast the symptoms produced by irritant and narcotic poisons respectively. Select a typical member of each group. Give its chemical characters; physiological effects; smallest poisonous dose; post mortem appearances presented in the body of an animal poisoned by it; and the mode of its detection in the contents of the stomach, or in the tissues.

Appendix D.

Examination Papers for University and Special Prizes.

University and Special Prizes.

University Prizes in Geometry.

(See Paper set for these Prizes, App. D., Science Scholarships of First Year, Mathematics, First Paper, p. 95.)

University Prizes in English Composition.

Examiner, Professor Armstrong.

Subject for Essay:—*The advantages of a knowledge of the Languages and Literature of the Greeks and Romans.*

College Prize in Antient History.

Examiners, Professor Lewis and Professor Boulger.

1. Give an account of Egypt, or Scythia, or the Persians, as described by Herodotus.
2. What were the causes, and results, of the Ionian Revolt, B.C. 500?
3. Draw up an epitome of the history of the Peloponnesian War.
4. Write a brief memoir of any distinguished poet, statesman, or warrior, of Antient Greece.
5. Contrast the Spartan with the Athenian character.

6. State the provisions in the code of the Twelve Tables which were intended to protect person and property.
7. What were the chief events that occurred between the second and third Punic Wars?
8. Describe the extent of the Roman Empire in the age of the Antonines.
9. Give some account of Julia Domna.
10. When did Dion Cassius flourish?

The Early English Text Society's Prizes.

The Early English Text Society's Prizes.

Examiner, Professor Armstrong.

1. Describe the immediate changes produced by the Norman Conquest in the political and social condition of England.
2. Trace the history of the House of Plantagenet.
3. Name and date the principal territorial acquisitions and losses of the English from the Conquest to the accession of Henry IV.
4. Decline *gifu*.
5. Give an example of the declension of the A. S. adjective, indefinite form.
6. Reproduce, as accurately as you can, Dr. Morris's account of the English of the Second Period.
7. Write out the pure English prefixes and suffixes and the Romance prefixes and suffixes used in Modern English.
8. Distinguish between the *Romance* and the *Fabliau*.
9. Name the principal English Trouvères and Troubadours.
10. Reproduce, as accurately as you can, Chaucer's characters of the Doctor, the Merchant, and the Shipman.

11. Restore the following passages to their original form in the *Canterbury Tales:*

(*a.*) "He loved so warmly that by night he slept no more than does the nightingale."

(*b.*) "There was no man anywhere better stored with wine."

(*c.*) "Of all the four orders there is none that knows so much of gossip and of flattery."

(*d.*) "She had some small dogs, which she fed with roast meat, and milk, and bread of the best flour; and she wept bitterly if any one of them happened to die, or if men smote [one] sharply with a wand."

New Shakspere Society's Prizes.

Examiner, Professor ARMSTRONG.

1. Trace the growth of English Comedy to the death of Ben Jonson.

2. Sketch the plot of *Much Ado About Nothing.*

3. To what class of dramas does *Much Ado About Nothing* belong?—Distinguish the class from the several others under which Shakspere's plays are grouped.

4. To what period of Shakspere's life is *Much Ado About Nothing* referred?—What were the peculiarities of Shakspere's style during this period?

5. Give a brief account of Sir Philip Sidney.

6. Name the other principal prose-writers of the Elizabethan age, and give some account of their lives and works.

7. Analyze the character of Richard III., and specify the various scenes in which its salient features are most distinctly brought out.

8. Describe the events of the Act V. of *King Lear*, and quote Lear's dying speech.

9. Illustrate, by extracts and references, any resemblances and coincidences of thought or expression which present themselves in the plays of *King Lear* and *Timon of Athens.*

10. Compare the blank verse of *Timon* with that of *Richard III.*

11. State from what parts of the several plays the following passages are extracted, and by what characters and under what circumstances they are spoken:—

(*a.*) ". . . . But now grow fearful,
By what yourself too late have spoke and done,
That you protect this course, and put it on
By your allowance."

(*b.*) "There is a cliff whose high and bending head
Looks fearfully on the confined deep."

(*c.*) "What need the bridge much broader than the flood?
The fairest grant is the necessity."

(*d.*) "Why, you speak like an ancient and most quiet watchman; for I cannot see how sleeping should offend."

(*e.*) ". . . . I pray thee, cease thy counsel,
Which falls into mine ears as profitless
As water in a sieve."

(*f.*) "Sorrow breaks seasons and reposing hours—
Makes the night morning, and the noontide night."

(*g.*) "What a wicked beast was I, to disfurnish myself against such a good time when I might have shown myself honourable."

Appendix E.

Donations to Library, Museums, &c.

APPENDIX E.

No. XV.

Donations to Library, Museums, and Botanic Garden.

Library.

Catalogue of the Gift of William Crawford, of Lakelands, Esq.

Allen, Captain, R.N., and T. R. H. Thomson, M.D., Surgeon, R.N., A Narrative of the Expedition to the Niger. 2 vols. 8vo. London, 1848.

Anderson, C. J., Lake Ngami (2nd Ed.) 8vo. London, 1856.

Andres, D. G. Dell' origine progressi e stato attuale d' ogni lettaratura. 8 vols. 4to. Parma, 1785.

Astle, T., Origin and Progress of Writing, &c. 1 vol. 4to. cf. London, 1803.

Atkinson, T. W., Oriental and Western Siberia. 8vo. London, 1858.

,, Travels in the Upper and Lower Amoor. 8vo. London, 1860.

Baikie, W. B., Nar. of an Exploring Voyage up the Rivers Kwo'ra and Bi'nue. 1 vol. 8vo. London, 1856.

Barnard, F. A., Bibliothecæ Regiæ Catalogus. 6 vols. Folio. London, 1820–29.

Bell, Th., A History of British Stalk-eyed Crustacea. 1 vol. 8vo. London, 1853.

Blume, C. L., Flora Javæ. Folio. Bruxelles. 1828.

Boate and Molyneux, Natural History of Ireland. 1 vol. 4to. Dublin, 1726.

Boullaye le-Gouz, Les Voyages et observations du Sieur de la. 1 vol. 4to. cf. Paris, 1657.

Bourne, J., Handbook of Steam Engine. London, 1865.

Bowring, Sir John, A Visit to the Phillippine Islands. 8vo. London, 1859.

——— The Decimal System. London, 1854.

Boyle, Hon. Robert, Works of. 6 vols. 4to. Russia. London, 1772.

Brewster, Sir David, On the Stereoscope. London, 1856.

Brunet, J. C., Manuel du Librairè. 4 vols. 8vo. Paris, 1843.

Buffon, M. de, Histoire Naturelle des Oiseaux. 10 vols. Folio. Paris, 1770–1786.

Burn, R. Scott, Handbook of Mechanical Arts. Edinburgh, 1860.

Burnes, Sir Alexander, Cabool. (2nd Ed.) 8vo. London, 1843.

Dictionary of Architecture—18 parts (A—LEAD), by the Architectural Publication Society.

Dictionnaire de Geog., Ancienne et Moderne and Par un Bibliophile. 21 pts. 8vo. Paris, 1870.

Dictionnaire Universel d' Histoire Naturelle. Edited by D'Orbigny. 13 vols. 8vo. Paris, 1841–49.

Duff, J. Grant, A History of the Mahrattas. 3 vols. 8vo. sco. cf. London, 1826.

Erasmi, Omnia opera. 9 vols. Fol. vellum. Basiliæ, 1540.

Fabretti, A., Corpus Inscriptionum Italicarum. 4to. Taurini, 1867.

" Supplemento alla raccolta delle antichissime iscrizioni Italiche (Primo e secondo). (3 parts.) 4to. Romæ, 1872–74.

Fabricii Bibl. Lat. mediæ et infimæ ætatis cum supp. 6 vols. in 3. 4to. vel. Petavii, 1754.

Fauriel, C., Chants Populaires de la Grèce Moderne. 2 vols. 8vo. Paris, 1824.

Forbes and Hanley's History of British Mollusca. 5 vols. 8vo. hf. cf. London, 1853.

Forbes, Ed., A History of British Starfishes. 1 vol. 8vo. London, 1841.

Geological Society of London, Proceedings of. 3 vols.

" " " Journal of the, from 1845 to 1876.

Geological Survey of Ireland, 87 Maps of the.

——— Explanations to Maps of. 23 parts.

Gould, J., Birds of Australia. 7 vols. Folio. London, 1818–1848.

——— Supplement to above. 5 parts. Folio. London, 1851–1869.

Gray, Maria E., Fig. of Molluscous Animals, &c. 5 vols. 8vo. bds. London, 1859.

Herschel, Sir J., Astronomy. (2nd Ed.) 8vo. London, 1849.

Histoire et Mémoires de l'Académie Royale des inscriptions et belles lettres (depuis son établissement jusques et compris l'Année MDCCXCIII., avec tables des matiéres depuis vol. I. jusques et compris le vol. XLIII.; et tableau général raisonné et methodique, en tout. 51 vols.) Paris, 1736–1808.

" " de l' Institut de France, classe d' histoire et de littérature ancienne, et académie des inscriptions et belles lettres. Tomes I–XXI. and XXIII. in 29 vols. Paris, 1815–1868.

Humphrey's, H. N., Origin and Progress of the Art of Writing. 1 vol. 8vo. bds. London, 1853.

Humboldt, Aspects of Nature. 2 vols. 8vo. London, 1849.

India, Documents, Tracts, &c., relating to :—

Selections from the Records of the Government of India. (Home Department.) 11 vols. 8vo. Calcutta, 1853–1864.

Selections from the Records of the Bengal Government. 11 vols. 8vo. Calcutta, 1851–1864.

Selections from the Records of the Bombay Government. 28 vols. 8vo. Bombay, 1854–1865.

——— Irrigation Series. Vol. I. 8vo. Bombay, 1866.

Map of the Province of Kattywar. (Bombay Government.)

Maps and Plans to accompany No. 53. (Bombay Government.)

Plans to accompany Selection No. 61. (Bombay Government.)

Plans to accompany Selection No. 69. (Bombay Government.)

Plans for the Lake Project in the Amednugger Collectorate. (Bombay Government.)

Plans for the Tank at Ekrookh. (Bombay Government.)

Lithographed Drawings (two) for the Water Supply of Kirkee and Poona. (Bombay Government.)

Selections from the Records of the Government of India. (North-west Provinces.) 7 vols. 8vo. Allahabad, 1864.

Plans and Sections for the Water Supply to the Poonah Cantonment.

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Appendix E.

Donations to Library, Museums, &c.

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" " Embassy to Burmah (1830–32). MS. 2 vols. 8vo.

Symes' Second Embassy to Burmah, and Canning's Mission to Rangoon. MS. Vol. I.

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Jacquin, Nic. Jos., Selectarum stirpium Americanarum Historia in qua ad Linnæanum systema determinatae descriptaeque sistuntur plantæ illæ quas in insulis Martinica, Jamaica, Domingo, aliisque et in vicinæ continentis parte, observavit rariores; adjectis iconibus ad autoris archetypa pietis. Illustrated title. 136 pages of printed text, 4 of a printed "Explicatio tabularum," and 264 coloured plates.

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Jomard, E. M., Les Monuments de la Geographie ou Recueil d'Anciennes Cartes Européennes et Orientales, &c. 1 vol. Atlas folio. Half boards. Paris. (s. a.)

Journal of Microscopical Science. Vols. I.–VIII. N. S., Vols. I., II. 8vo.

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Klencke, Professor, Alexander von Humboldt; a biographical monument. Schlesier, Life of William von Humboldt. Translated by Juliette Bauer. 1 vol. 8vo. London, 1852.

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Langlois, E. H., Essai sur la Calligraphie des Manuscrits du Moyen-age et sur Ornements, &c. 1 vol. 8vo. Half calf. Rouen, 1841.

Leabhar Breac, The Speckled Book, &c. 2 vols. Folio. Dublin, 1872.

Leake, W. M., Travels in Northern Greece. 4 vols. 8vo. Boards. London, 1835.

Lloyd and Gerard, Travels in the Himalaya Mountains. 1 vol. 8vo. Boards. London, 1846.

Loudon, J. C., Encyclopædia of Agriculture. 2 vols. 8vo. Boards. London, 1825.

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M'Culloch, J. R., Treatises and Essays on Money, &c. 2nd Ed. Edinburgh, 1859.

Marco Polo, Travels of. By W. Marsden. 1 vol. 4to. London, 1818.

Mémoires concernant l'histoire, les Sciences, les Arts, les Mœurs et les Usages des Chinois, par les Missionnaires de Pekin. Paris, 1776–91, and 1814. 16 vols. 4to.

Traité de la chronologie Chinoise composé par le P. Gaubil, et publié par M. Silvestre de Sacy. Paris, 1814. 4to. Together 17 vols. bound in 16 vols.

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Mill, J. S., Political Economy. (2nd Ed.) 2 vols. 8vo.
London, 1849.
Montfaucon, Antiquities. 7 vols. Folio. London, 1721.
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Oxford, 1830.
Murchison, Sir R. I., Siluria. 8vo. London, 1854.
Murray, A., Geographical Distribution of Mammals. 4to. London, 1866.
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Newtoni, J., Omnia Opera. 5 vols. 4to. Russia. Londini, 1779.
Nicholson, P., Principles of Architecture. 3 vols. 8vo. Boards.
London, 1827.
Notes and Queries. 2nd Series, Vols. I.–XII. (1856–61); 3rd Series, Vols. 1.–X. (1862–66); 4th Series, Vol. I. (1868), and 9 parts for 1869.

Oriental Translation Fund (Publications of the) :—

Al-Makkari, The History of the Mohammedan Dynasties in Spain, from the Arabic by Pascual de Gayangos. 2 vols. 4to.
London, 1840.
Avesta, the Religious Book of the Parsees, transl. from Prof. Spiegel's German translation of the original MSS. by A. H. Bleeck. 3 vols. in 1. 8vo. Hertford, 1864.
Dabistan, The, or School of Manners, from the Persian by D. Shea and A. Troyer. 3 vols. 8vo. Paris, 1843.
Haji Khalfa, Lexicon bibliographicum et encyclopædicum a Mustafa ben Abdallah Katib Jelebi dicto et nomine Haji Khalfa celebrato compositum, &c. (Translated, &c., by Gustav Flügel). 7 vols. 4to. Leipzig, 1835–59.
Ibn-Khallikan's Biographical Dictionary, translated from the Arabic by Baron MacGuckin de Slane. 4 vols. 4to.
Paris, 1842–71.
Kitab-i-Yamini, The Historical Memoirs of the Amir Sabaktagin, &c. Translated from the Persian by Rev. James Reynolds, B.A. 1 vol. 8vo. London, 1858.

Owen, R., Palæontology. 8vo. Edinburgh, 1860.
Ouseley, Sir W., Travels. 3 vols. 4to. London, 1819.
Parkyns, Mansfield, Life in Abyssinia. 2 vols. 8vo. Boards.
London, 1853.
Paris, M. Paulin, Les Manuscrits François de la Bibliotheque du Roi.
7 vols. 8vo. Paris, 1836–48.
Quekett, J., On the Microscope. 8vo. London, 1848.
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4to. Leipzig, 1873–74.
Reuss, J., Repertorium Commentationum e Soc. Lit. Edit.
16 vols. in 8. 4to. Half calf. Gott., 1801.
Sclater and Salvin, Exotic Ornithology. 13 parts. Folio.
London, 1866–69.
Siebold, P. F., Flora Japonica. Folio. Lug. Bat., 1826.

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Donations to Library, Museums, &c.

Smith, A., Wealth of Nations. By M'Culloch. 4 vols. 8vo. Boards. Edinburgh, 1828.
Smyth, W. H., The Celestial Cycle. 2 vols. 8vo. London, 1844.
Stephens, J. L., Incidents of Travel in Central America, Yucatan, &c. (By Catherwood.) 1 vol. 8vo. Boards. London, 1854.
Stritterus, I. C., Memoriæ populorum, olim ad Danubium, Pontum Euxinum, Paludem Maeotidem, Caucasum, Mare Caspium, et inde magis ad septemtriones incolentium e scriptoribus historiæ Byzantinæ erutæ et digestæ. 4 vols. 4to. Petropoli, 1771–79.
Swainson, W., New Zealand and its Colonization. 8vo. London, 1859.
Temminck, C. I., Planches coloriées d'Oiseaux. 5 vols. Folio. Paris, 1838.
Took, T., History of Prices. 5 vols. 8vo. Boards. London, 1838–57.
Ulster, Journal of Archæology. 9 vols.
Vámbéry, A., History of Bokhara, &c. 1 vol. 8vo. Boards. London, 1873.
Vattel, M. de, Law of Nations. 1 vol. 8vo. Half calf. London, 1811.
Watt, Robert, Bibliotheca Britannica. 4 vols. 4to. Edinburgh, 1824.
Weisbach, J., The Mechanics of Machinery and Engineering. 2 vols. 8vo. London, 1848.
Winckelmann, G., Monumenti Antichi inediti. 2 vols. Folio. Roma, 1821.
Wolf, J., Zoological Sketches. Edited by Sclater. Folio, in case. London, 1861.
Wrangell, F., Expedition to the Polar Sea. (Edited by Colonel Sabine.) London, 1844.
Wurtz, Ad. History of Chemical Theory. (Edited by Watts.) London, 1869.

List of Books presented by Professor R. de Vericour :—

Ampere, J. J., Histoire de la Litterature française au moyen age. 8vo. Paris, 1841.
Blase de Bury (Le Baron de), Ecrivains et Poetes de l'Allemagne. 8vo. Paris, 1846.
Dullers, Ed., Geschichte der deutschen Volks. (Von. W. Pierson.) 2 vols. 8vo. Berlin, 1846.
Genin, F., Lexique comparé de la Langue de Molière. (Didot.) 8vo. Paris, 1846.
„ Recreations Philologiques. 2 vols. 8vo. Paris, 1856.
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Goedeke, Karl, Goethe und Schiller. 1 vol. 8vo. Hanover, 1859.
Hegel, W. F., Cours d'Esthetique. (Par Benard.) 5 vols. 8vo. Nancy, 1840–1852.
Jouffroy, Cours d'Esthetique. 8vo. Paris, 1843.
Keratry, M., Du Beau dans la Nature, &c. 8vo. Paris, 1856.
———— Du Beau dans les Arts d'Imitation, &c. 2 vols. 8vo. Paris, 1822.
———— Examen Phil. du Sublime et du Beau. 8vo. Paris, 1823.
Martin, La Russie et L'Europe. 8vo. Paris, 1856.
Thiersch, F., Algemeine Aesthetik. 8vo. Berlin, 1846.
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Wey, M. F., Histoire des Revolutions du Langage en France.

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Antiquary, The Indian. (Bombay). Received regularly. By the Secretary of State for India.

Belfast Philosophical Society, Proceedings of, for Session 1875–76. By the Society.

British Association :—

Fauna and Flora of the West of Scotland. 8vo. 1876.
Catalogue of the Western Scottish Fossils. 8vo. 1876.
Notices of some of the Principal Manufactures of the West of Scotland. 8vo. Glasgow, 1876.
By the Glasgow Local Committee of the British Association for the Advancement of Science.

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Facsimiles of Ancient Charters. Part II. Folio. 1876.
Facsimile of an Egyptian Hieratic Papyrus. Folio. 1876.
Catalogue of Sanskrit and Pali Books. By Ernest Haas. 4to. 1876.
Catalogue of Greek Coins, Sicily. 8vo. 1876.
Catalogue of British Aphides. By G. B. Buckton. 8vo. 1876.
Catalogue of British Bees. By F. Smith. 8vo. 1876.
Catalogue of the Fossil Reptilia of South Africa. By Richard Owen. 4to. London, 1876.
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Catalogue of Playing and other Cards. By W. H. Willshire. 8vo. 1876.
Lepidoptera Heterocera, Illustrations of. By A. G. Butler. 4to. 1876.
Guide to the Exhibition Rooms of the Departments of Natural History and Antiquities. 8vo. 1876.
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Canada, Geological Survey of. Report of Progress for 1875–76.
By the Director of the Geological Survey on behalf of the Government of Canada.

Canadian Journal, The, of Science, Literature and History. Received regularly. By the Canadian Institute.

Chemist and Druggist, The. (London.) Received regularly. By the Editor.

China, Medical Reports. (Shanghai.) Received regularly. By the Inspector-General of Chinese Maritime Customs.

Chaucer Society. Autotypes of Chaucer Manuscripts. Folio. By the Chaucer Society.

Cork, Fauna and Flora of the county of. By Richard Caulfield, LL.D.

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Appendix E.

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Lincei, Atti della R. Accademia dei. Received regularly. By the Accademia dei Lincei.

London University, Catalogue of the Library of. By the University.

Medical News, The (Philadelphia). Received regularly. By the Publisher.

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Norreys, Sir Denham, Report on the State of the District around Mallow, in 1775. By the Author.

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Quebec, Report of the Minister of Public Instruction for the Province of, for 1875-76. By the Minister of Public Instruction.

Returns, Weekly, of Births and Deaths, Dublin.

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Smithsonian Institute, Contributions to Knowledge. Vol. XX.

„ Report of, for 1875. By the Smithsonian Institute.

Streeter, Ed. W., Gold: or Legal Regulations for the standard of, &c. Translated by Mrs. Brewer. 8vo. London, 1877. By the Editor.

United States Coast Survey. Report of the Superintendent of the, for 1873. 4to. 1875. By the Superintendent.

Museums.

MINERALOGICAL AND GEOLOGICAL MUSEUM.

Rock Crystal, with beautiful pearly lustre on the pyramidal faces. By Miss G. E. Cotter, Rockforest, co. of Cork.

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Botanic Garden.

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Printer to the Queen's Most Excellent Majesty.
For Her Majesty's Stationery Office.

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THE REPORT

OF THE

PRESIDENT

OF

QUEEN'S COLLEGE, GALWAY,

FOR

THE SESSION 1875–76.

Presented to both Houses of Parliament by Command of Her Majesty.

DUBLIN:
PRINTED BY ALEXANDER THOM, 87 & 88, ABBEY-STREET,
PRINTER TO THE QUEEN'S MOST EXCELLENT MAJESTY,
FOR HER MAJESTY'S STATIONERY OFFICE.

1877.

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THE REPORT

OF THE

PRESIDENT OF QUEEN'S COLLEGE, GALWAY,

FOR

THE SESSION 1875–76.

TO THE QUEEN'S MOST EXCELLENT MAJESTY.

MAY IT PLEASE YOUR MAJESTY,

In accordance with the provisions of the Act of Parliament founding the Queen's Colleges, I have the honour of submitting to your Majesty the following Report of the Proceedings and Condition of the Queen's College, Galway, for the Session 1875–76.

In the following Tables (Numbers I. and II.) will be found a statement of the Numbers and Religious Persuasions of the Students who have entered this College and attended the Lectures therein during each Session since its opening:—

I.—NUMBERS and RELIGIOUS PERSUASIONS of STUDENTS who have entered the Queen's College, Galway, in each year from its opening.

Session.	Matriculated Students.	Non-Matriculated Students.	Total.	Members of Established Church.	Roman Catholics.	Presbyterians.	Wesleyan Methodists.	Independents.	Various.	Total.
1849–50,	64	4	68	24	38	6	–	–	–	68
1850–51,	23	3	26	10	9	7	–	–	–	26
1851–52,	31	5	36	13	21	2	–	–	–	36
1852–53,	21	2	23	8	12	3	–	–	–	23
1853–54,	25	5	30	12	15	3	–	–	–	40
1854–55,	26	15	41	18	18	3	2	–	–	31
1855–56,	32	7	39	14	15	8	1	1	–	49
1856–57,	35	8	43	15	22	3	1	1	1	43
1857–58,	36	7	43	16	17	9	–	1	–	43
1858–59,	44	4	48	20	19	7	2	–	–	48
1859–60,	35	5	40	12	25	1	–	1	1	60
1860–61,	*59	1	60	13	33	12	2	–	–	60
1861–62,	†59	3	62	21	35	6	–	–	–	62
1862–63,	60	4	64	18	27	16	1	–	2	54
1863–64,	54	5	59	20	21	11	2	4	1	70
1864–65,	58	12	70	26	28	13	–	2	1	39
1865–66,	46	3	49	16	19	10	3	–	1	49
1866–67,	42	2	44	14	18	7	3	2	–	44
1867–68,	†44	3	47	14	20	11	2	–	–	47
1868–69,	‡56	4	60	20	24	15	1	–	–	60
1869–70,	49	5	54	20	25	6	2	–	1	54
1870–71,	52	6	58	22	23	12	–	1	–	58
1871–72,	§64	1	65	19	31	11	3	1	–	65
1872–73,	55	4	59	17	24	14	1	2	1	59
1873–74,	‖80	3	83	27	31	21	3	1	–	83
1874–75,	67	7	74	24	35	14	1	–	–	74
1875–76,	¶81	10	91	21	35	31	3	1	–	91
Total,	1,298	138	1,436	474	640	262	33	18	9	1,436

* Including three who had previously been in attendance as non-matriculated students.
† Including one who had previously been in attendance as a non-matriculated student.
‡ Including two who had previously been in attendance as non-matriculated students.
§ Including two who had previously been non-matriculated students.
‖ Including two who had previously been non-matriculated students.
¶ Including one who had previously been a non-matriculated student.

II.—Numbers and Religious Persuasions of Students attending Lectures in the Queen's College, Galway, in each Session from its opening.

Session.	Matriculated Students.	Non-Matriculated Students.	Total.	Members of Established Church.	Roman Catholics.	Presbyterians.	Wesleyan Methodists.	Independents.	Various.	Total.
1849–50, . .	64	4	68	24	38	6	–	–	–	68
1850–51, . .	60	3	63	22	28	13	–	–	–	63
1851–52, . .	68	5	73	25	41	7	–	–	–	73
1852–53, . .	73	2	75	26	40	9	–	–	–	75
1853–54, . .	76	5	81	30	42	9	–	–	–	81
1854–55, . .	69	16	85	32	46	5	2	–	–	85
1855–56, . .	78	9	87	26	42	14	3	2	–	87
1856–57, . .	88	8	96	30	49	10	3	3	1	96
1857–58, . .	92	8	100	31	47	16	3	2	1	100
1858–59, . .	113	9	122	37	64	15	4	1	1	122
1859–60, . .	111	7	118	31	69	11	2	2	3	118
1860–61, . .	141	3	144	33	85	19	3	2	2	144
1861–62, . .	148	5	153	39	91	19	3	1	–	153
1862–63, . .	161	4	165	33	95	32	2	–	3	165
1863–64, . .	160	5	165	41	91	25	3	4	1	165
1864–65, . . .	157	12	169	50	78	31	2	6	2	169
1865–66, . .	139	5	144	33	71	29	4	4	3	144
1866–67, . .	133	2	135	36	62	27	4	5	1	135
1867–68, . . .	124	3	127	34	54	32	3	4	–	127
1868–69, . .	146	4	150	47	63	34	2	4	–	150
1869–70, . . .	130	8	138	42	66	24	2	3	1	138
1870–71, . .	115	8	123	37	62	20	–	4	–	123
1871–72, . .	139	2	141	31	79	25	4	2	–	141
1872–73, . .	135	3	138	28	68	35	3	3	1	138
1873–74, . .	152	4	156	35	77	38	5	1	–	156
1874–75, . . .	149	6	155	37	71	40	4	3	–	155
1875–76, . .	156	11	167	28	82	50	3	4	–	167
Total, . .	3,177	161	3,338	898	1,701	595	64	60	20	3,338

MATRICULATION EXAMINATION, NUMBER OF ENTRANCES FOR SESSION, 1875–6.

The General Matriculation, or Examination for Entrance, was held on the 20th of October, and a Supplementary Examination on the 16th of November. Of the Candidates who presented themselves 81 passed; there also entered, for the first time, 10 Non-Matriculated students, making the total number 91, who were thus divided according to Religious denominations:—

Members of Established Church,	21
Roman Catholics,	35
Presbyterians,	31
Wesleyan Methodists,	3
Independents,	1
	91

DISTRIBUTION OF ALL THE STUDENTS OF THE VARIOUS RELIGIOUS DENOMINATIONS, ATTENDING THE COLLEGE DURING THE SESSION 1875–76, AMONG THE SEVERAL FACULTIES:—

	Church of Ireland.	Roman Catholics.	Presbyterians.	Other Denominations.	Total.
Faculty of Arts,	8	23	20	2	53
„ Law,	–	2	3	–	5
„ Medicine,	17	49	28	5	99
Department of Engineering,	5	5	–	–	10
Occasional Students,	–	5	1	–	6
	30	84	52	7	173
Deduct, attending in two Faculties,	2	2	2	–	6
Total of separate individuals,	28	82	50	7	167

It will be seen by reference to the preceding tables that the system of United Education has been really carried out in this College; and that the numbers of Students continue to represent, in just proportion, those classes of the several persuasions who seek for collegiate education. It is gratifying to be able to add that, since the opening of the College, not a single circumstance has occurred to interrupt the harmony, which has subsisted among the Students of the several denominations.

The following Tables (III. and IV.), give the number of Students attending the different Classes, and the number of Lectures delivered by each Professor since the opening of the College. A reference to the latter table renders it unnecessary for me to expatiate on the zeal and assiduity with which the Professors have discharged their duties. The Reports of the Professors, given elsewhere (Appendix B), will best exhibit the application and improvement of the Students.

III.—Return showing the Number of Students attending the Lectures of each Professor, in each year since the opening of the College.

	1849-50.	1850-51.	1851-52.	1852-53.	1853-54.	1854-55.	1855-56.	1856-57.	1857-58.	1858-59.	1859-60.	1860-61.	1861-62.	1862-63.	1863-64.	1864-65.	1865-66.	1866-67.	1867-68.	1868-69.	1869-70.	1870-71.	1871-72.	1872-73.	1873-74.	1874-75.	1875-76.
Greek,	50	31	24	19	24	21	21	23	21	23	24	24	36	36	35	30	34	24	25	28	23	20	27	29	36	23	25
Latin,	50	27	24	22	21	19	20	23	21	22	23	24	29	35	36	32	33	29	23	27	27	22	29	28	36	32	27
Mathematics,	54	38	28	28	27	28	25	34	34	42	35	42	48	52	41	43	40	37	27	39	30	32	36	28	44	33	38
English, &c.,	47	43	28	23	23	22	22	27	20	31	22	29	24	38	39	30	22	23	22	24	23	24	26	27	36	30	30
Modern Languages,	54	23	23	19	25	37	29	34	30	38	52	70	77	76	71	78	72	65	60	65	64	57	66	67	84	80	84
Celtic Languages,	–	3	2	2	–	–	–	–	3	–	3	6	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Natural Philosophy,	8	11	23	19	27	23	21	27	29	38	33	70	57	67	62	68	54	49	50	58	54	46	54	58	61	71	71
Natural History,	3	26	25	21	32	25	30	30	32	37	37	39	32	33	29	38	32	27	34	27	28	29	39	40	37	43	45
Logic and Metaphysics,	–	20	17	14	14	14	13	14	15	16	17	19	21	23	25	30	20	16	23	17	21	14	22	23	15	24	19
Chemistry,	13	25	36	29	27	23	29	40	40	49	53	60	57	46	52	52	44	48	46	51	50	49	55	52	61	67	74
Mineralogy and Geology,	–	4	14	15	10	14	10	8	15	16	17	–	6	10	5	6	6	7	4	5	6	2	3	5	2	4	3
Engineering,	2	10	11	13	10	11	9	10	15	18	12	21	18	21	17	16	17	17	13	15	15	12	10	8	10	10	10
Agriculture,	4	5	5	5	6	6	7	11	14	7	7	5	3	5	2	–	–	–	–	–	–	–	–	–	–	–	–
Anatomy and Physiology,	10	9	8	15	18	13	22	35	39	47	52	71	68	65	56	54	53	53	54	65	59	57	73	67	78	72	90
Materia Medica & Medical Jurisprudence,	–	5	9	11	10	7	8	17	13	24	20	26	34	28	32	23	18	30	20	32	28	27	29	28	31	32	41
Surgery,	–	–	6	12	7	7	6	13	13	18	20	19	33	27	26	28	24	12	19	21	18	13	21	19	21	19	22
Midwifery,	–	–	4	7	4	–	4	3	11	5	11	12	14	17	12	14	14	9	8	9	8	10	15	9	17	12	12
Medicine,	–	–	–	4	4	2	6	6	7	7	6	8	16	21	26	19	15	10	15	14	14	12	16	15	21	13	13
English Law,	4	4	5	6	6	7	5	4	3	7	7	4	7	7	7	8	6	7	8	12	12	12	13	12	9	9	5
Jurisprudence and Political Economy,	4	4	12	13	16	10	9	9	7	17	13	10	5	9	8	8	10	12	14	15	11	13	12	8	8	9	6

IV.—Return of the Number of Lectures delivered by each Professor in each Session since the opening of the College.

——	1849–50.	1850–51.	1851–52.	1852–53.	1853–54.	1854–55.	1855–56.	1856–57.	1857–58.	1858–59.	1859–60.	1860–61.	1861–62.	1862–63.	1863–64.	1864–65.	1865– 6.	1866–67.	1867–68.	1868–69.	1869–70.	1870–71.	1871–72.	1872–73.	1873–74.	1874–75.	1875–76.
Greek,	265	254	216	224	248	249	217	262	223	246	210	229	*315	290	255	255	247	274	240	249	257	263	246	237	253	230	255
Latin,	270	252	212	238	233	190	217	244	195	189	189	196	181	263	228	237	236	248	224	209	267	239	248	190	229	259	255
Mathematics,	221	255	230	167	164	211	181	†186	†234	†233	†209	210	†213	†199	†199	†213	†198	†212	177	†206	†209	214	†200	†211	†209	†200	208
English, &c.,	37	28	77	97	126	128	127	107	100	92	97	76	16	160	147	145	136	155	156	132	120	139	140	134	139	149	149
Modern Languages,	212	249	207	175	155	160	155	†162	†154	†151	†169	†246	†244	†229	†284	256	†269	†163	†272	†252	†237	280	310	338	227	257	292
Celtic Languages,	–	90	65	30	–	–	–	‡3	48	–	30	24	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Natural Philosophy,	63	154	120	207	139	175	225	174	173	192	172	213	196	211	203	229	255	293	257	258	285	269	253	248	255	259	272
Natural History,	–	120	85	92	85	76	68	68	87	77	76	56	57	62	70	82	77	70	60	80	104	101	103	101	107	104	51
Logic and Metaphysics,	–	40	114	159	123	141	138	162	106	109	170	165	132	182	146	157	139	172	171	141	121	136	129	141	86	134	141
Chemistry,	32	111	128	140	113	123	97	101	107	98	100	95	91	95	89	87	102	94	97	91	103	94	83	110	84	112	120
Mineralogy and Geology,	–	51	45	57	51	50	45	49	60	64	64	§–	61	49	66	56	58	63	60	51	61	57	57	61	52	56	46
Engineering,	9	118	105	97	80	76	112	111	122	126	81	162	183	241	211	249	226	237	258	226	252	246	256	234	240	201	236
Agriculture,	–	106	112	160	144	160	192	174	123	154	182	83	65	54	28	–	–	–	–	–	–	–	–	–	–	–	–
Anatomy and Physiology,	111	112	111	108	100	115	104	103	102	104	‖116	‖96	‖90	‖84	‖105	‖118	‖86	‖137	‖116	‖117	‖121	126	121	160	170	179	169
Materia Medica & Medical Jurisprudence,	–	51	60	90	95	93	95	96	90	90	77	85	78	88	88	84	84	81	79	77	76	78	81	80	66	70	78
Surgery,	–	–	61	62	62	61	62	60	53	59	60	55	60	60	50	49	58	61	54	60	58	54	49	47	48	48	48
Midwifery,	–	–	59	70	62	–	62	61	60	59	54	51	60	51	54	51	51	55	53	57	55	56	50	34	37	35	–
Medicine,	–	–	–	64	62	61	62	60	60	58	62	55	49	50	50	49	51	54	55	50	45	48	47	44	36	38	49
English Law,	18	45	55	97	71	72	72	40	35	48	49	72	68	64	68	60	36	61	77	75	80	75	83	77	77	50	46
Jurisprudence and Political Economy,	20	48	60	96	106	95	60	52	51	97	49	61	60	67	83	70	53	73	85	78	88	100	82	71	92	60	69

* Exclusive of 72 lectures to extra classes.
† Exclusive of a Course of Lectures given by the Senior Scholar.
‡ These Lectures were open to the Public.
§ Owing to an alteration in the Ordinances of the University, no Lectures on Mineralogy and Geology were delivered this Session.
‖ Exclusive of Anatomical Demonstrations.

Queen's University Examinations.*

The following table gives the number of Students of this College who passed the Examinations of their Standing and Faculty, and obtained Degrees, &c., at the October and June commencements, 1875–76:—†

	M.A.	B.A.	First Examination.
Faculty of Arts,	4	6	8
	LL.D.	LL.B.	
Faculty of Law,	2	1	
	M.D.	M.Ch.	Diploma in Midwifery.	Second Examination.	First Examination.
Faculty of Medicine,	20	14	11	19	32
	B.E.	First Examination.	
Department of Engineering,	1	2	

Of the Masters in Arts—

1 Obtained First in Ancient Classics, and First in Modern Languages.
1 Second Class in Ancient Classics.
1 Second in History, Logic, and Metaphysics.
1 Upper Pass Division.

4

Of the Bachelors in Arts—

1 Obtained Second Class Honors in Mathematical Science, and Second Class in Experimental Science.
1 „ Second Class Honors in English, Metaphysics, and History.
4 Classed in the Upper Pass Division.

6

Of those who passed the First University Examination in Arts—

2 Obtained First Class Honors, and were awarded Peel Exhibitions of £20 and £15 a year for three years, respectively.
1 „ Second Class Honors.
3 Were Classed in the Upper Pass Division, and
2 „ Unclassed.

8

Of those admitted to the Degree of LL.B—

1 Obtained Honors of the Second Class.

Of the Doctors in Medicine—

1 Obtained First Class Honors.
2 Were Classed in the Upper Pass Division.
17 Were Unclassed.

20

Of those who passed the Second University Examination in Medicine—

7 Were Classed in the Upper Pass Division, and
12 „ Unclassed.

Of those who passed the First University Examination in Medicine—

2 Were placed in First Honor Class.
1 Was placed in Second do.
29 Were Unclassed.

In the Engineering Department—

1 Obtained Second Class Honors with the Degree of B.E.
1 „ Second Class Honors at the First University Examination.
1 Passed.

* At the University the Students of the Queen's Colleges are examined conjointly for Degrees and Honors.

† Ten of the Students included in this Table received part of their education in Queen's College, Belfast, and four in Queen's College, Cork.

Conduct and Discipline of Students.

I have much pleasure in reporting that the conduct of the Students has fully sustained the high character given of them on former occasions. No breach of discipline, and no act of insubordination occurred during the Session. On this part of my subject I refer with satisfaction to the Reports of the Deans of Residences (Appendix A). And here I think it due to these functionaries to express the high sense I entertain of the importance of the services, which they have so disinterestedly rendered to the Students, and to the College. They have discharged, without fee or reward, duties involving much responsibility.

Receipts and Expenditure of the College.

In Appendix C will be found a statement of the Receipts and Expenditure of the Parliamentary Grant, and of the Fees and Fines of the College for the year ending March, 1876.

General Condition and Progress of the College.

On this subject I may be permitted to quote the Minutes of the proceedings of the last Visitation.

"The stated Triennial Visitation of the College was held on the 6th of April, 1876.

"The Visitors present were His Grace the Duke of Leinster, Chancellor of the University, the Right Hon. Mr. Justice Fitzgerald, Edward Hamilton, Esq., M.D., President of the College of Surgeons.

"The Registrar called the Rolls of Professors and Students, and stated that there were 191 Students on the College Books, of whom 167 were in regular attendance since last October.

"There was no special business to bring before the Court of Visitors.

"The Duke of Leinster then asked the President what Report he had to make of the condition and progress of the College.

"The President said—The condition and prospects of the College are satisfactory and cheering. Let me here bear my grateful testimony to the untiring zeal with which the professors devote themselves to the interests of the students, and to the manner in which the students respond to these exertions of the professors; not only by attention to their studies, but by pursuing an exemplary, blameless life, by adhering to discipline, and by maintaining regularity and order. Let me illustrate this by stating that since we had the honour of meeting your lordships here some four years ago, but two cases of any importance have come before the College Council. These facts are very encouraging; so, too, is the friendly feeling that prevails towards the College through the town and province. Looking to the Entrances, I find they have almost steadily increased since the opening of the College; those of the present year amounting to 91, while they exceed the Entrances of last year by 17, are larger than those of any former year since the College opened. The attendance, too, is satisfactory, and exceeds that of the last year by 12. As your Grace is aware, daily attendance on lectures is stringently enforced in all the departments of the Queen's Colleges. This rule, which imposes on the great majority of our students the expense, and other inconveniences, of living away from home, though a great part of each

year must of course tend to diminish the number on our rolls, but it is a rule, which I feel sure the Queen's Colleges will never consent to dispense with, maintaining as they have always done, attendance on lectures as the special characteristic of their system, and a fundamental principle in university education. Looking to the principle of united education, which this College was founded to maintain, it has been satisfactorily carried out. I find, on referring to the College books, that the number, which have entered the College, and pursued their education here from the different persuasions are as follows :—474 members of the Church of Ireland ; 640 members of the Roman Catholic Church ; 262 Presbyterians ; 33 Wesleyan Methodists ; 18 Independents ; 9 various denominations, and, in all the mixture of different persuasions, the shadow of a dissension or dispute on the ground of religious opinion has never taken place, but, while all adhere to their own opinions with rigid fidelity, all feel that in their walk through life the first duty of Christians is to love one another. I find another ground of satisfaction and strength in the friendly feeling, which prevails in the present Government towards the Colleges, and their wish to serve them. The grant for maintaining the libraries, museums, and the different departments of the Colleges has been largely increased, which will enable us to maintain and improve the efficiency in which I hope you will find the departments. Let me also state that we have ground to hope that the condition of the Professors will be largely improved, and their salaries rendered more adequate to their services and deserts. The chair of Midwifery is vacant. I cannot allude to this without deploring the heavy blow the College has sustained in the loss of one of her ablest professors, and one of our most revered and beloved fellow-labourers. I allude to the death of Professor Doherty, which took place at the beginning of the year. His chair is not yet filled, nor will it be till the end of the session. Meanwhile we obtained permission of the Lord Lieutenant to appoint a lecturer to deliver the necessary lectures. Dr. Lynham, a student of our own, has been appointed to the task, which he has performed with rare ability, and to the satisfaction of the College. I deeply lament to state that Mr. Lupton, the able Professor of Jurisprudence and Political Economy, has been prevented, by severe illness, from attending at the College during the present session. The College is fortunate in possessing the services of a Professor, who, in addition to the arduous duties of his own chair—the chair of the Latin Language—is fully competent to fill the chair of Jurisprudence. With the consent of the Lord Lieutenant the College has appointed Professor Maguire to perform, during the continuance of Mr. Lupton's illness, the duties of his chair.

"The Duke of LEINSTER, on the part of the Visitors, congratulated the President on the satisfactory nature of the statement he had just made. It was an extremely gratifying and most encouraging report of the condition of the College, and they hoped he would at future Visitations be able to give an equally satisfactory account of its prosperity."

THE MEDICAL SCHOOL.

The progress, condition, and requirements of this department of the College call at this time for special notice.

The success, which has attended the School, is highly satisfactory. In 1860–1, the eleventh year from the opening of the College, the number of Students had risen to 73. That, however, was an unusually prosperous year, and so large a number was

not again reached until 1871–2, when 78 Students attended in the Faculty of Medicine; and in subsequent years the numbers have been 74, 85, 85, and 99. And I may add that in the current Session (1876–7) there are 106 in attendance. There is thus every appearance of a permanent prosperity, which must strike as remarkable, every one who is acquainted with the neighbourhood of Galway, and considers how unpropitious a locality it must be for founding and maintaining a Medical School. The Medical School was a creation of the College; no such institution had previously existed in the Western Province; while Belfast and Cork had long possessed flourishing Medical Schools. The complaint that the Medical Professors make is, not that the Students are fewer than they would wish, but, as will be seen from the Reports of Professors Cleland and Pye, that additional facilities, especially for Hospital teaching, are required. The Anatomical rooms are filled to overflowing: and it seems likely that enlarged accommodation will soon be necessary for that department, and for the Medical Museums, which are yearly becoming larger.

In Appendix D will be found the General Regulations of the College, Lists of Officers, Courses for Matriculation and Scholarships, &c.; and in Appendix E selections from the Scholarship and Sessional Examination Papers.

Testified on behalf of the College by your Majesty's most dutiful servant,

EDWARD BERWICK, *President.*

APPENDIX.

Appendix A

Reports of the Deans of Residences.

APPENDIX A.

Reports of the Deans of Residences for the Session 1875–76.

St. Nicholas, Galway, January 29, 1877.

My Dear Sir,—I have to report that the Church of Ireland students have been steady in their conduct, and constant in their attendance at public worship, during the past year.

Both in their evening occupations, and in their amusement, they have maintained a high character for their orderly life. In all my intercourse with them this year I have had very great pleasure and satisfaction.

I remain yours faithfully,

J. O'Sullivan, M.A.,
Rector of Galway, and Dean of Residences.

The President, Queen's College.

Galway, January 15, 1877.

Dear Sir,—During the Session 1875–76, there were four Students under my care as Dean of Residence. I am happy to be able to report favourably of their moral conduct, and of their attention to their studies in their lodgings. They attended public worship with considerable regularity—two of them with very marked regularity. They also attended a class for the study of the Holy Scriptures.

On the whole I desire to report favourably of them all.

Believe me to be, Sir, yours very truly,

J. Kydd.

E. Berwick, Esq., A.B.,
President of Queen's College.

The Manse, Galway, December 30, 1876.

Sir,—During the Session 1875–76 forty-six Students of the Presbyterian Church have been under my care. My intercourse with them, both official and private, has this Session been of an unusually intimate character, affording me abundant opportunities for becoming acquainted with their personal habits and conduct. I have, therefore, the greater satisfaction in reporting that, during the entire Session, their demeanour, both in public and in private, has been uniformly that of Gentlemen and Students; not a single instance has occurred of anything in their conduct requiring censure, or rebuke.

The average attendance at public worship has been about forty.

My class, meeting once a week in one of the College rooms, during the first and second terms, has been attended by twenty-five Students with whose diligence and punctuality I have been extremely gratified. I may add that the attendance would have been larger if I had been able to secure an hour for my lecture free from the competition of other, *compulsory*, classes.

Only one case of sickness, fortunately of a mild form, occurred during the Session.

I have again to express my regret that, owing to the false position in which Deans of Residences are placed, under existing university

arrangements, I have found extreme difficulty in properly discharging the duties of my office. As an opportunity was not afforded me of meeting the Treasury Commissioners, on the occasion of their recent visitation, and giving evidence, as I had intended doing, with reference to the unsatisfactory postition of the Deans, as officials in the Queen's Colleges, I may be permitted to state here that their case is one, which urgently requires investigation and re-adjustment. At present they are regarded as responsible officers of the various Colleges, both by the Government, and by the parents and guardians of the young men placed under their care; whilst, at the same time, they have no recognised official status, and, absolutely, no official authority whatever. Their duties are onerous and important; but sufficient facilities are not afforded them for discharging these properly. It is obviously unjust to expect the Deans of Residences to give their whole time and undivided attention, for two and a half, or three, days a week (and my own experience is that this time is barely sufficient), to the duties of an office, to which no salary is attached. Either the office ought to be abolished, as of no practical advantage to the colleges, or its duties ought to be properly defined and regulated, and the persons discharging them fairly remunerated for their services.

Appendix A.

Reports of the Deans of Residences.

In conclusion I beg to repeat the statement, which I made in my report of last session, with respect to the defective lodging-house accommodation for students in Galway. The rooms occupied by them are, in many instances, small and badly ventilated, and the rents charged excessive.

I have the honour to be, your obedient servant,

JOHN C. MOORE, B.A.,
Dean of Residences.

The President, Queen's College, Galway.

APPENDIX B.

Appendix B.

Reports of Professors.

REPORTS OF PROFESSORS FOR THE SESSION 1875–76.

FACULTY OF ARTS.

GREEK.

Professors since the opening of the College:—

1849. *W. E. HEARNE, LL.D.
1854. †W. NESBITT, M.A.
1864. D'ARCY W. THOMPSON, M.A.

The course of last Session extended through three terms.

The classes were four in number:—1. Honor Class, third year; 2. Honor Class, second year; 3. Honor Class, first year; 4. Pass Class, first year.

The subjects read in these several classes bore, more or less directly, on the examination, for M.A., with Honors of 1876; on the first University Examination for Arts with Honors of 1876; on the College Scholarship Examination for second year of 1876; and on the first University Examination in Arts for Pass in 1877.

Three lectures weekly, on alternate days, were given to each class. At each lecture, in addition to the preparation of some set portion of an author, a written exercise was required from each student. The method of teaching was, and is, partly tutorial, partly professorial; the former method, greatly owing to the limited number of students, prevailing.

* Warden and Dean of the Faculty of Law, University of Melbourne.
† Professor of Latin in Queen's College, Belfast.

Appendix B.

Reports of Professors.

The total number of students attending was 25. They were all matriculated.

The total number of lectures given was 255. The average attendance, on all the classes, was 85 per cent.

The general conduct of the students in all the classes was in the highest degree satisfactory.

D'Arcy Wentworth Thompson, M.A.,
Professor of Greek.

Queen's College, Galway, January 17, 1877.

LATIN.

Professors since the opening of the College :—

1849. *William Nesbitt, M.A.
1854. Richard B. Bagley, M.A.
1869. Thomas Maguire, LL.D.

I have delivered in the Session, 1875–76, 255 lectures in Latin. The students as usual were most attentive.

Thomas Maguire, LL.D.,
Professor of Latin.

Galway, January 15, 1877.

MATHEMATICS.

Professors since the opening of the College :—

1849. †John Mulcahy, LL.D.
1853. George Johnston Allman, LL.D.

According to the regulations of the Queen's University all students in the Faculty of Arts are required to attend a course of Mathematics during the first session; in the second session, Mathematics (second course) forms one of four courses, out of which students are required to select two; third year's students may substitute an attendance on an Honor Course of Mathematics for one of the courses set down for study in the third session.

All students in the department of Engineering are required to attend the courses of Mathematics during the first and second sessions.

On entering, students are required to pass an examination in Arithmetic, Algebra, as far as Simple Equations, and the First and Second Books of the Elements of Euclid.

The course for Science Scholarship of the first year includes the first Six Books of Euclid, Algebra, as far as the Binomial Theorem, and Plane Trigonometry, as far as the Solution of Triangles. The candidates for these scholarships are generally well prepared in this course.

For this reason two courses of Mathematics are provided for students of the first year, the higher course being attended also by the Pass Students of the second year, and the Professor gives four courses of lectures extending over three terms.

In the session 1875–6, the subjects of lecture, the number of lectures delivered, and the number of students attending the lectures in each of these four courses were as follows :—

I. Subjects of lecture :—

Theory of Arithmetic; Elements of Algebra; Plane Trigonometry, as far as the Solution of Triangles.

Number of lectures, ... 63
Number of students, ... 25 (of first year).

* Professor of Latin in Queen's College, Belfast.
† Author of Principles of Modern Geometry, Dublin, 1852.

II. Subjects of lecture :—

Elements of Solid Geometry, including the measure of prisms, pyramids, and the three *round bodies;* Plane and Spherical Trigonometry; Nature, and Simple Transformations, of Algebraical Equations, Solution of Cubic and Biquadratic Equations; Analytic Geometry, Discussion of the Equations of the Straight Line and Circle.

Number of lectures, . 42

Number of students, . 11 (10 of first year, and 1 of second year).

III. Subjects of lecture :—

Analytic Geometry, including the Discussion of the Equation of the second degree, and the properties of Conic Sections; Differential and Integral Calculus.

Number of lectures, . 64

Number of students, . 10 (of second year).

IV. Subjects of lecture :—

Analytic Geometry, of three dimensions; Differential Equations.

Number of lectures, . 39

Number of students, . 2 (of third year).

Total number of lectures delivered, . 208

Total number of students in attendance, . 38

GEORGE J. ALLMAN.

NATURAL PHILOSOPHY.

Professors since the opening of the College :—

1849. *MORGAN W. CROFTON, B.A., F.R.S.

1852. †GEORGE J. STONEY, M.A., F.R.S.

1857. ARTHUR H. CURTIS, LL.D.

Queen's College, Galway, December 20th, 1876.

During the Session 1875-6, I delivered, as usual, six courses of lectures, viz. :—

Three in Mixed Mathematics—one an advanced course, delivered to third year's students in Arts and Engineering, the others—a pass, and an honor, course, delivered to second year's students.

Two in Experimental Physics—a pass, and an honor, course, and one in applied Natural Philosophy.

The total number of lectures delivered by me was 272, and the number of students in attendance 71, of whom three attended two courses.

The regularity and attention of the members of the classes was all that could be desired, and the answering at the examinations, which closed the Session, highly satisfactory.

ARTHUR HILL CURTIS, LL.D.
Professor of Natural Philosophy.

HISTORY, ENGLISH LITERATURE, and MENTAL SCIENCE.

Professors of History and English Literature since the opening of the College :—

1849. EDWARD BERWICK, B.A.

1850. VERY REV. J. P. O'TOOLE.

1852. JOSEPH O'LEARY, B.A.

1864. T. W. MOFFETT, LL.D.

LOGIC and METAPHYSICS.

1849. T. W. MOFFETT, LL.D.

* Professor of Mathematics and Mechanics, Royal Military Academy, Woolwich.
† Secretary of the Queen's University.

Appendix B.

Reports of Professors.

By the Charter of 1863, the Chair of History and English Literature was combined with that of Mental Science.

I. The English Language Class.

This Class is attended by Students in Arts of the First Year. The prescribed Lectures were delivered in the Second Term of the Session; additional (voluntary) Lectures being given in the Third Term.

During the Session 1875–6, the Students went through the following course of reading:—Johnson's Vanity of Human Wishes; Gray's Elegy and Bard; Goldsmith's Traveller and Deserted Village; Coleridge's Ancient Mariner; and Macaulay's Essays on Clive and Hastings.

The Grammatical, Literary, and Biographical details were discussed by means of *vivâ voce* questions and answers.

In the course of Lectures a view was given of the main facts in the history and growth of the English Language; attention was also paid to Composition.

Number of Students in Class,	20
Number of Lectures,	39

II. The Logic Class.

This Class is attended by Students in Arts of the Second Year. The prescribed Lectures were delivered in the Second Term of the Session; additional Lectures being given in the Third Term.

Fowler's Deductive Logic, with the relative parts of Jevons' Lessons on Logic, will indicate the nature and limits of the course. Constant references were made to the treatises of Aldrich, Spalding, Thomson, &c.

III. The Higher Logic Class.

This Class is attended by those Students in Arts of the Third Year who desire to prosecute more fully Logical studies—especially those who intend to offer Logic as one of their courses at the Degree Examination.

The course of Lectures included a discussion of the New Analytic, the Logic of Induction and its Subsidiary Operations, &c. The Logical works of Hamilton, Mill, and Bain, were largely used.

Number of Students in the Logic Classes,	15
Number of Lectures,	88

IV. English Language and Literature.*

In this department (as in those of Higher Logic, History, and Metaphysics) the Class is attended by Students of the Third Year, and the Lectures are delivered in the First and Second Terms; a voluntary course being added in the Third Term.

During the Session 1875–6, in addition to Lectures, more or less formal, on the successive movements of our Literature, and on the lives and writings of the more eminent or representative Poets and Prose-writers of each period, the Class went through the following course of critical reading:—Chaucer's Prologue to the Canterbury Tales; Shakspere's Hamlet and Julius Cæsar; Milton's Paradise Lost, Books I. and II.; Dryden's Absalom and Achitophel; Johnson's Lives of Milton and Dryden; Burke's Thoughts on the Cause of the Present Discontents, and two Speeches on America.

Number of Students,	10
Number of Lectures,	55

* In the Third Session Students are allowed, under special conditions (see University Calendar), to substitute certain other courses of Lectures for those in English Language and Literature, History, and Metaphysics.

V. History.*

The course included the history of Great Britain and Ireland from the accession of the House of Stuart to 1830, and of France for the same period.

A summary view was given of the nature, uses, and general divisions of History and the method of studying it; of public events and transactions, and the general progress of society; while special attention was bestowed on Constitutional and Legal History.

Constant references were made to the Histories of Hume, Lingard, Macaulay, Hallam, Dyer, Creasy, Erskine May, Green, and other works, which are accessible in the Library.

Number of Students,	8
Number of Lectures,	55

VI. Metaphysics.*

The course included discussions on the principles of Psychological and Metaphysical science, with a critical review of the principal Philosophical systems from Descartes to the present time. Sir William Hamilton's Lectures, and Notes and Dissertations on Reid, and Ueberweg's History of Philosophy were largely used; constant references being made to other standard works.

Number of Students,	5
Number of Lectures,	53

The Professor cannot but commend the industry and attention of the Students generally; he very seldom found it necessary to urge them to greater exertions. At the Examinations at the close of the Session, the answering of not a few was excellent, while he had not occasion to censure the preparation of any. Still more important, he thinks, than any special acquisition of knowledge was the habit of diligent and conscientious study, which he can testify many of the Students exemplified.

T. W. Moffett, ll.d.

Chemistry.

Professors since the opening of the College :—

1849. Edmund Ronalds, ph.d.
1856. Thomas H. Rowney, ph.d.

Queen's College, Galway, February 19, 1877.

Sir,—In the general class of chemistry the number of students attending the lectures was 47, and the total number of lectures delivered was 66. In the class for practical chemistry 27 students attended. Owing to the want of sufficient accommodation in the laboratory for so many students, 2 classes had to be formed, and 27 lectures to each class were given, making a total of 54 lectures.

Thomas H. Rowney,
Professor of Chemistry.

To the President, Queen's College, Galway.

* See note p. 16.

Appendix B

Reports of Professors.

NATURAL HISTORY.

1849. A. G. MELVILLE, M.D.

January 11th, 1877.

DEAR SIR—There was a slight increase in the number of students during the session 1875–76, and the conduct of the students was satisfactory.

After so many years it is impossible to report anything novel or interesting.

I am, yours very truly,

A. G. MELVILLE.

To Edward Berwick, Esq.,
President, Queen's College, Galway.

MODERN LANGUAGES.

Professors since the opening of the College :—

1849. AUGUSTUS BENSBACH, M.D.
1868. CHARLES GEISLER, PH.D.

A.—Owing to the absence in Ireland of a good previous intermediate education, which might provide a young man with a rudimentary knowledge of some modern language, and in consequence of no encouragement being held out at the first year's Scholarship Examination to those who, perhaps, would otherwise feel inclined to acquire that knowledge before entering College, students, with very rare exceptions, only take up either French or German, especially as they would not be credited at the second year's Scholarship Examination for a knowledge of both.

B.—The first term of the first session is exclusively devoted to the grammar of the languages. The outlines and essential features of the languages are so far dwelt upon, that, with the help of exercises made at home, such a progress is achieved as to enable a student at the commencement of the second term to enter upon a critical reading of easy prose extracts from classical writers. Towards the end of the second, and during the third term, some tragedy or comedy is translated and analysed, both with regard to literary merits and to idiomatical peculiarities. Occasionally also the most striking etymologies, phonetical changes, and the historic variations of meaning are pointed out.

C.—During the second session a special course of lectures is devoted to Syntax, and constantly translations are made from easy modern English historians, especially with a view to develop a knowledge of idiomatical phraseology and the niceties of Syntax. The text-books read during the past session were: "The Modern German Reader," by Whitney, "Tasso," by Goethe, and "Modern German Lyric," by Buchheim, "The Modern French Reader," senior course, by Rassal and Kärcher, "L'Honneur et l'Argent," by Ponsard.

D.—The course of the third session embraces History of French and German Literature, and Historic Grammar of the French Language. Free essays on a given subject are regularly handed in.

CHARLES GEISLER.

To the President of Queen's College, Galway.

LECTURES ON SANSCRIT LANGUAGE.

The Professor of Modern Languages is also, by permission of the Council of the College, entitled to deliver lectures on the Sanscrit Language. There was, however, no class formed during the past session.

CHARLES GEISLER.

To the President of Queen's College, Galway.

JURISPRUDENCE AND POLITICAL ECONOMY.

Professors since the opening of the College :—

1849. DENIS C. HERON, LL.D.
1859. JOHN E. CAIRNES, M.A.
1870. WILLIAM LUPTON, M.A.
1876. THOMAS MAGUIRE, LL.D. Lecturer (*locum tenens*).

I delivered in the session 1875–76, 53 lectures in Political Economy and Civil Law. The smallness of the number is accounted for by the non-existence of two classes.

THOMAS MAGUIRE, LL.D., B.L.,
Lecturer in Political Economy, and Civil Law.

ENGLISH LAW.

Professors since the opening of the College :—

1849. *HUGH LAW, B.A., Q.C.
1858. W. B. CAMPION, B.A., Q.C.

The students in this department have been steady and well-conducted, and continue to make satisfactory progress. The course of study and access, through the library, to the best text-books and other books, render the law schools of the Queen's Colleges an excellent preparatory system for each branch of our legal profession.

I regret to say that the last rules of the Benchers, rendering it to a great extent compulsory on law students to attend their school in Dublin, have necessarily had an injurious effect on the law schools in the Queen's Colleges as regards the number of students.

W. BENNETT CAMPION.

ANATOMY and PHYSIOLOGY.

Professors since the opening of the College :—

1849. †CHARLES CROKER-KING, M.D., M.R.I.A.
1863. JOHN CLELAND, M.D., F.R.S.

The numbers attending these classes continue to improve. There have been 88 pupils in the class of Practical Anatomy, and 48 attending Physiology. The course of instruction has been similar to that reported in detail last year, and the class rolls show that the attendance has been satisfactory.

Additions continue to be made to both the Physiological and Pathological departments of the museum under my charge, but, until the medical museums can be united in one suite of departments under the charge of a responsible officer, the students cannot profit by the collections so much as would be desirable.

As one of the clinical teachers it is my duty to report the absolute necessity that something should be done in the direction of placing the hospital accommodation of Galway more fully at the disposal of the College. The facts of the case have on more than one occasion been laid by the clinical teachers very fully before Her Majesty's Government; the College is, therefore, free from blame, and the clinical teachers earnestly hope that the assistance required will not be withheld.

JOHN CLELAND.

* P.C., M.P. co. Londonderry; some time Attorney-General for Ireland.
† Medical Commissioner, Local Government Board.

Appendix B.

Reports of Professors.

Practice of Medicine.

1849. Nicholas Colahan, M.D.

Lectures on the Theory and Practice of Medicine were delivered on three days in each week during the medical session of 1875–76. In addition to the lectures, morbid specimens and plates further illustrating the subjects were laid before the students.

Of the students the Professor is much gratified to be in a position to speak in the highest terms both as to their attendance and conduct.

The excellent answering at the weekly examinations proved that the students approached the study of the important subject of Practical Medicine in real earnest, and augurs well for their future success.

N. Colahan, M.D., Professor.

Theory and Practice of Surgery.

1849. James V. Browne, M.D.

Three Lectures are delivered weekly, which are continued during the Medical Session, comprising the whole subject of Theory and Practice of Surgery, in addition to which clinical Lectures on Surgery are delivered, and operations performed. The Professor has great reason to be pleased with the Class, whose demeanour and attention are most excellent.

J. V. Browne, M.D.

Materia Medica.

Professors since the opening of the College :—

1849. Simon M'Coy, F.R.C.S.I.
1873. J. P. Pye, M.D., M.CH.

During the session 1875–6, 27 students attended the class of Materia Medica. The course extended over the whole period of the medical curriculum. Lectures were delivered on three days in each week.

The class of Medical Jurisprudence was attended in 1875–6 by 13 students.

A three months' course is the qualification required in this subject by the Queen's University, and by the Licensing Corporations. Lectures were delivered on three days in each week from the commencement of the second term till the close of the medical session.

In each class experiments and analyses by the lecturer form a prominent part of the course. A laboratory, in which these experiments and analyses could be performed by each student under the superintendence of the lecturer, would be a desirable addition to the means of teaching Materia Medica, and is absolutely essential for giving proper instruction in Medical Jurisprudence.

The difference in the numbers of students in the two classes is owing to the different periods of the medical curriculum at which attendance on these classes is prescribed—the one being a second, the other a fourth year's class.

The small attendance in the senior class is connected with one of the most urgent wants of this medical school—additional means of giving clinical instruction.

If the hospital accommodation in the town were fully utilized, and these institutions brought into closer connexion with the College, a teacher need not—as he must under existing circumstances—advise a

student to take advantage in his third and fourth years of the larger clinical field afforded by the metropolitan hospitals, instead of taking out the full medical curriculum here.

This subject has been fully represented in a report of the clinical board made last year, to which I beg to refer.

J. P. Pye.

Queen's College, Galway, 22nd January, 1877.

Civil Engineering.

Professors since the opening of the College :—

1849. W. B. Blood, B.A.
1860. Edward Townsend, M.A., C.E.

The Engineering School consists of three classes, and the course of instruction extends over a period of three years.

The year, or Session, consists of three terms, and each class receives six lectures per week during each term, three of which are given to office work.

The Drawing School is open from ten to five every day in the week, so that ample opportunity is afforded to students for the work executed in that department.

Students of the second and third years are taken out for Field Operations, such as the Making of Sections, and Surveys, the Measurements of Heights, the laying out of Railway Curves, and other work calculated to familiarize them with the use of the level, theodolite, and sextant.

The number of lectures given in the above Session was 236.

Of these 59 were given to students of the first year, 59 to students of the second, 60 to students of the third, and 58 to office work. The last Course was attended by the three classes simultaneously.

The conduct of the students was good, and the attendance regular.

The following constitute the principal subjects of study in each year :—

First Year.—Curves, Scales, Descriptive Geometry and Projections, Isometric Drawing, Perspective Drawing, and Shadows.

Second Year.—Construction, Adjustment and Manipulation of Instruments; Surveying, Levelling, Mapping, Mensuration of Earthwork, Railway Curves, Descriptive and Constructive Architecture.

Third Year.—Nature, Property, and Strength of Materials; Stresses in Girders, Roofs, and other structures ; the construction of Iron, Timber, and Stone Bridges; Roads and Railways, Hydraulics, Supply of Water to, and Drainage of, Towns, Pumping Engines, Parallel Motion, Link Motion, and the Locomotive Engine.

In the study of the above Subjects, the following text-books are recommended :—

First Year.—Treatises on Descriptive Geometry, by Hall, Heather, De Fourcy, and Leroy, "The Carpenter's Assistant," and the "Engineer and Machinist's Drawing Book."

Second Year.—Rankine's "Manual of Civil Engineering," Simms on the Adjustments of Instruments, Heather on Instruments, Williams' "Practical Geodesy," Sir John Macneill's Tables, Bidder's Tables, "History of Architecture," by Ferguson, 3 vols., Rickman's "Gothic Architecture," "The Oxford Glossary," Aikin on the Doric Order, Stuart and Revett's "Antiquities of Greece."

Third Year.—Rankine on the Steam Engine, Rankine's "Prime Movers," Zeuner's "Valve Gear," Clarke on the Locomotive, Reid on the Manufacture of Portland Cement, Reid on Limes, Ran-

Appendix B. Reports of Professors.

kine's "Manual of Civil Engineering," Stoney on Strains, Humber on Iron Bridges, Downing's "Hydraulics," Neville's "Hydraulics," Beardmore's "Hydraulic Tables," Latham's "Sanitary Engineering," "History and Manufacture of Iron," by Fairbairn. Papers in the Minutes of the Proceedings of the Institution of Civil Engineers, London and Ireland, and in the Transactions of the Society of Engineers.

EDWARD TOWNSEND, M.A.

Appendix C.

APPENDIX C.

ACCOUNT of the RECEIPTS and EXPENDITURE of the ADDITIONAL PARLIAMENTARY GRANT of £1,600, for MAINTENANCE of the COLLEGE, and of the COLLEGE FEES and FINES, for the year ending 31st March, 1876.

1875. Dr. RECEIPTS.	£ s. d.	£ s. d.
April 1, To Balance,	327 15 1	
1876.		
March 31, „ Amount received from Paymaster of Civil Services during the year ending this date,	1,600 0 0	
Total,		1,927 15 1

Cr. EXPENDITURE. From 1st April, 1875, to 31st March, 1876.	£ s. d.	£ s. d.
1. Library of Ancient and Modern Literature and Philology—		
Ancient Classical Languages and Philology,	40 9 1	
English History and Literature,	54 17 11	
Foreign Modern Languages,	27 8 10	
General Library,	75 10 11	
		198 6 9
2. Libraries, Museums, and Collections of Mathematical, Physical, and Chemical Sciences—		
Mathematical Library,	34 5 1	
Physical Library and Museum,	29 6 1	
Chemical Library and Laboratory,	16 19 4	
		80 10 6
3. Libraries, Museums, and Collections of Objects of the Department of the Natural Sciences—		
Library of Natural History and Museum,	86 18 1	
Library and Museum of Geology,	20 17 10	
		107 15 11
4. Libraries, Museums, and Collections of Objects of the Department of Engineering and Agriculture—		
Library of Engineering,	16 6 0	
Instruments and Drawings of Engineering,	67 15 1	
Agricultural Department—Insurance,	0 6 0	
		84 7 1
5. Museum and Library of Medical Science—		
Library of Medical Works,	73 4 3	
Anatomical Museum,	36 1 0	
Materia Medica and Medical Jurisprudence,	15 15 9	
Midwifery,	1 15 0	
Practice of Medicine,	8 9 10	
		135 5 10
6. Library of Metaphysical, Legal, and Economical Science—		
Law, Jurisprudence, and Political Economy,	22 12 2	
Metaphysics,	26 9 4	
		49 1 6
7. Printing Examination Papers, College Calendar, Stationery, Advertising, Postage, and Office Expenses,		276 1 5
8. Heating and Lighting,		149 0 0
9. Botanic Garden and Grounds,		122 18 0
Total,		1,203 7 0
1876.		
March 31, Balance unexpended,		724 8 1
Total,		1,927 15 1

Fees and Fines.

1875.	Dr.	£	s.	d.	£	s.	d.
April 1,	To Balance unexpended, ...				320	10	11
1876.							
March 31,	„ College Fees from Students, from 1st April, 1875, to date, viz.:—						
	92 at 10*s.* . .	46	0	0			
	102 at 5*s.* . .	25	10	0			
	Fine, . . .	1	0	0			
					72	10	0
	Total, ...				393	0	11

1876.	Cr.	£	s.	d.	£	s.	d.
March 31,	By payments from 1st April, 1875, to date, viz.:—						
	Stipend to Lecturer on Medical Jurisprudence, ...	25	0	0			
	Treasurer College Athletic Sports, .	8	0	0			
	Cleansing purposes, ...	4	10	0			
	Travelling expenses, . . .	55	14	0			
					93	4	0
	„ Balance unexpended, ...				299	16	11
	Total, ...				393	0	11

The Accounts of the College up to 31st March, 1876, have been examined and found correct by the Commissioners for Auditing the Public Accounts.

George J. Allman, ll.d., *Bursar.*

17*th June*, 1876.

APPENDIX D.

QUEEN'S COLLEGE, GALWAY.

1876–7.

DAYS AND HOURS OF MATRICULATION AND SCHOLARSHIP EXAMINATIONS. OCTOBER, 1876.

DAYS.	HOURS.	FIRST YEAR.	SECOND YEAR.	THIRD YEAR.
Tuesday, 17th Oct.	10—5		Supplementary Examinations.	Supplementary Examinations.
Wednesday, 18th Oct.	10—5		Supplementary Examinations.	Supplementary Examinations.
Thursday, 19th Oct.	10—1		Lit. Schol.—Latin. Med. } Schol.—Chem. Engin. }	
	2—5		Lit. Schol.—Greek.	
Friday, 20th Oct.	10—1	Matriculation.	Lit. Schol.—English. Eng. Schol.—Geom. Draw., &c.	
	2—5	Matriculation.	Lit. Schol.—English. Eng. Schol.—Geom. Draw., &c.	
Saturday, 21st Oct.	10—1		Lit. Schol.—Latin. Med. Schol.—Nat. Hist.	
	2—5		Lit. Schol.—Greek. Med. Schol.—Nat. Hist.	
Monday, 23rd Oct.	10—1	Lit. Med. } Schol.—English. Lic. in Arts Ex.	Med. Lit. } Schol.—Mod. Lang.	Engin. Schol.—Engin.
	2—5	Lit. Med. } Schol.—Greek.		Engin. Schol.—Engin.
Tuesday, 24th Oct.	10—1	Lit. Med. } Schol.—Latin.		
	2—5	Lit. Med. } Schol.—Greek.		
Wednesday, 25th Oct.	10—1	Lit. Med. } Schol.—Latin.	Med. Schol.—Nat. Phil.	Engin. Schol.—Nat. Phil.
	2—5	Science Med. Engin. } Schol.—Arithm. Lic. in Arts Ex.	Science Engin. } Schol.—Math.	Engin. Schol.—Nat. Phil.
Thursday, 26th Oct.	10—1	Science Med. Engin. } Schol.—Geom.* Lic. in Arts Ex.	Science Engin. } Schol.—Math. Med. Schol.—Anat.	Engin. Schol.—Math.
	2—5	Science Med. Engin. } Schol.—Alg. & Trig.	Med. Schol.—Anat.	Engin. Schol.—Math.

The Examinations for Senior Scholarships in Arts will commence on Thursday, the 19th October, with the exception of that in the Greek and Latin languages and Ancient History, which will be held at the close of the first Term.

The Examination for the Third and Fourth Year Scholarships in MEDICINE will commence on Thursday, the 26th October.

Arrangements will be made for holding the Examinations for Law Scholarships early in December.

* The University Prizes in Geometry will be decided on this paper, which will be also taken into account in deciding the First Year's Science Scholarships.

QUEEN'S COLLEGE, GALWAY.—Founded December 30, 1845.

This College is a Corporation, founded by Letters Patent under the Great Seal of Ireland, under the name and style of the "President and Professors of Queen's College, Galway."

The general government and administration of the College under the Statutes, and in cases not provided for by the Statutes, is vested in a Council consisting of the President, and six Professors elected by the Corporate Body.

Visitors.

His Grace the Lord Primate.
His Grace the Duke of Leinster.
The Right Honorable the Chief Secretary for Ireland.
The Right Reverend the Lord Bishop of Tuam.
The Most Reverend Archbishop M'Hale.
The Right Honorable Mr. Justice FitzGerald.
The Right Honorable the Chief Justice of the Common Pleas.
The Rev. the Moderator of the General Assembly.
The President of the College of Physicians.
The President of the Royal College of Surgeons.

President.

Edward Berwick, B.A.

Council.—1875–76.

The President.
Edward Townsend, M.A.
D'Arcy W. Thompson, M.A.
George J. Allman, LL.D.
James V. Browne, M.D.
John Cleland, M.D., F.R.S
Thomas Maguire, LL.D.

Professors.

Greek,	D'Arcy W. Thompson, M.A.
Latin,	Thomas Maguire, LL.D.
Mathematics,	George Johnston Allman, LL.D.
Natural Philosophy,	Arthur H. Curtis, LL.D.
History, English Literature, and Mental Science,	Thomas W. Moffett, LL.D.
Chemistry,	Thomas H. Rowney, PH.D.
Natural History,	Alexander G. Melville, M.D. Edin., M.R.C.S. Eng.
Mineralogy and Geology,	Wm. King, D. Sc.
Modern Languages,	Charles Geisler, PH.D.
Jurisprud. and Polit. Econ.	William Lupton, M.A.
English Law,	William B. Campion, Q.C.
Anatomy and Physiology,	John Cleland, M.D., F.R.S.
Practice of Medicine,	Nicholas Colahan, M.D.
Practice of Surgery,	James V. Browne, M.D., L.R.C.S.I.
Materia Medica,	Joseph P. Pye, M.D., M.CH.
Midwifery,	Richard Doherty, M.D., Hon. V.P., Obstet. Soc. Dub
Civil Engineering,	Edward Townsend, M.A.
Lecturer on Medical Jurisprudence,	Joseph P. Pye, M.D., M.CH.

Office-Bearers.

Thomas W. Moffett, LL.D.,	Registrar.
George J. Allman, LL.D.,	Bursar.
John H. Richardson, B.A.,	Librarian.

Deans of Residence.

Church of Ireland,	Rev. James O'Sullivan, M.A
General Assembly of the Presbyterian Church in Ireland,	Rev. John C. Moore, B.A.
Wesleyan Methodist Church,	Rev. Colin M'Kay.
Independent Church,	Rev. John Kydd.

Appendix D.

Regulations of the College.

The College Session.

The College Session is divided into three Terms.

The First Term of the Session 1875–6 commenced on Tuesday, October 19, and ended on December 18, 1875.

The Second Term will commence on January 3, and end on Saturday, April 8, 1876.

The Third Term will commence on April 24, and end on Saturday, June 10, 1876.

The First Term of the Session 1876–7 will commence on Tuesday, October 17, and end on December 23, 1876.

Students.

Students are either Matriculated, or Non-Matriculated.

Matriculated Students are required to pass an Entrance or Matriculation Examination, and to pursue fixed courses of study.

Non-Matriculated are permitted to attend the Lectures of any of the Professors, without being required to pass the Matriculation, or any other, Examination.*

Matriculation.

Candidates for Degrees or Diplomas in the Queen's University, or for Scholarships, Exhibitions, or Prizes, in Queen's College, Galway, are required to pass a Matriculation Examination.

Students are admitted by examination to Matriculation in the Faculties of Arts, Law, and Medicine, and in the School of Engineering. In each Faculty and School special courses are prescribed for examination.†

The Matriculation Examination is held at the commencement of the first Term of each Session; but additional Matriculation Examinations are held before the close of the Term.

The last Matriculation Examination for Students in the Faculty of Medicine is held on the 16th of November.

Candidates for Matriculation are required to appear in the Registrar's office before the Matriculation Examination, for the purpose of entering their names on the College books.

Each candidate, before being admitted to the Matriculation Examination, is required to pay to the Bursar the Matriculation and College fee of ten shillings. This fee will not be returned to such students as may fail to pass the Examination; but such students may present themselves at any subsequent Examination without any additional payment.

A fee of £2 is chargeable on official certificates signed by the Registrar that candidates have passed the Matriculation Examination; but such certificates are not required for Students attending Lectures in the College, or proceeding to the Queen's University.

Attendance on Lectures.

Attendance upon Lectures is strictly prescribed to all Matriculated Students.

All Students shall pay the College Fee, and a moiety of their Class Fees, to the Bursar, and enter their names with the Registrar, before they are admitted to the classes of the several Professors.

The Registrar shall furnish to the Professors, before the commencement of Lectures in each Term, the rolls of their several classes, and from time to time such names as shall be afterwards entered with him.

* For further particulars of the status and privileges of Non-Matriculated Students, *vide* p. 28.

† *Vide* pp. 31, 38, 43, 47.

No Student shall have his name replaced on the rolls of the Professors at the commencement of the second Term who has not paid the second moiety of his Class Fees.

Attendance on Lectures includes preparation for Lectures; and it is competent for a Professor who, on any occasion, is not satisfied with the preparation of a Student, to refuse him credit for attendance.

Attendance upon Courses of Lectures in the Faculty of Arts is recognised in cases where Students pass to a different Faculty or School.

In case of absence arising from illness, or other unavoidable cause, the Student is required to lodge with the Registrar, immediately on recommencing his attendance, a letter or certificate explaining his absence to be laid before the Council.

Examinations.

A General Sessional Examination is held at the close of each Session in the subjects upon which Lectures have been delivered during the Session. There is also a Supplementary Examination on the same subjects at the commencement of the following Session.

Every Matriculated Student in the Faculties of Arts and Law, and in the School of Engineering, must pass either the General Examination, or the Supplementary Examination, before his name can be entered on the College Register as having completed the Session; and no Student in these Faculties and Schools can be permitted to enter upon the Course of the succeeding year until he has so completed the previous Session.

No Student is admitted to the Sessional or the Supplementary Examination, who has not kept the Courses of Lectures prescribed to Students of this class and standing.*

Scholarships.

Forty-six Junior and eight Senior Scholarships have been founded in the College.

Of the Junior Scholarships†—

Thirty, of the value of £24 each, are appropriated to Students pursuing the Course prescribed for the Degree of B.A.

Three, of the value of £20 each, to Students pursuing the Course for the Diploma of Elementary Law and the Degree of LL.B.

Eight, of the value of £25 each, to Students pursuing the Course for the Degree of M.D.

Five, of the value of £20 each, to Students pursuing the Course for the Diploma of Civil Engineering.

The Examinations for Junior Scholarships are held at the commencement of the First Term of the Session.

No Student is allowed to become a Candidate for a Junior Scholarship until he has paid the College Fee and one-half of the Class Fees for the current Session.

No Student is permitted to present himself as a Candidate for a Senior Scholarship who has not entered his name with the Registrar, and paid the College Fee to the Bursar.

All Senior Scholars in Arts are required to be in attendance in the College during their period of office.

Junior Scholars are exempted from the payment of one moiety of the Class Fees for the courses prescribed to Students of their faculty and standing.‡

No Student can hold the same Scholarship a second time.

No Scholarship will in any case be awarded, unless the Candidates are, in the opinion of the Examiners, sufficiently qualified in the prescribed courses.

* For University Examinations, see the "University Regulations."

† For the distribution of these Scholarships, the subjects of Examination, and the conditions upon which they are held, *vide* pp. 33–37, 39, 40, 45–47, 50.

‡ This exemption does not extend to the Honor Lectures attended by them out of the order of studies laid down in the Curriculum, nor to the course of Medical Jurisprudence.

Appendix D.

Regulations of the College.

Exhibitions.

The College is empowered to award Exhibitions, varying in value from £12 to £20, at the same Examinations as the Scholarships, and to be held upon the same terms.

Exhibitioners are required to pay the whole amount of the Class Fees for the Session.

No Student is allowed to compete for a Junior Scholarship or Exhibition in any course substantially the same as that in which he has already held a Scholarship or Exhibition.

All Junior Scholars and Exhibitioners are required to attend lectures, and pass the Sessional Examinations during their year of office.

Prizes.

The College is empowered to award Prizes, by examination, at the close of the Session, to the most distinguished answerers in the several courses of study pursued during the Session.

Two prizes for English prose composition, and two prizes for Geometry,* have been founded in the College, to be awarded annually at entrance:—first prize for English prose composition, £3 worth of books; second do., £2 worth of books: first prize for Geometry, £3 worth of books; second do., £2 worth of books.

All Candidates for Scholarships, Exhibitions, or Prizes, must have passed the Matriculation Examination in the Faculty or School to which the Scholarships, Exhibitions, or Prizes are attached.

Non-Matriculated Students.

Non-Matriculated Students are those who are permitted to attend the Lectures of any of the Professors without being required to pass the Matriculation or any other examination. They are required to pay to the Bursar the regulated Fees for the Classes proposed to be attended, and to sign an engagement to observe order and discipline in the College. They are not entitled to compete for Scholarships or other Collegiate distinctions.

During the term of their attendance on College Lectures they are admitted to read in the Library; and, on payment of a deposit of £1, are permitted to take out two volumes on loan, under the same regulations as Matriculated Students.

Every Non-Matriculated Student must pay to the Bursar one-half of his Class Fees before his name can be entered on the rolls of the several Classes, and the remainder at the commencement of the second Term.

Students of other Universities.

Any Student who shall have pursued part of his Collegiate Studies in any one of the Queen's Colleges, or in any University capable of granting Degrees in the several Faculties of Arts, Law, and Medicine, and any Legal or Medical Student who shall have pursued part of his Legal or Medical Studies under teachers recognised by the Senate of the Queen's University, on passing such Examinations, and fulfilling such other conditions as the Council shall prescribe, may take corresponding rank in this College; and also may compete for Scholarships or other Prizes of the corresponding year, provided he shall not hold at the same time a Scholarship or other office of emolument in any other University, College, or Medical School.

* Candidates are recommended to read M'Dowell's Exercises on Euclid and in Modern Geometry (Cambridge: Deighton, Bell, and Co., 1863), from beginning to page 150.

Fees.

The College Fees payable by Matriculated Students are 10*s.* at the commencement of the first year, and 5*s.* at the commencement of each subsequent year.

The Fees payable by Students, whether Matriculated or Non-Matriculated, to the several Professors for attendance on the several Pass Courses of Lectures or instruction, are £1 for each Course extending over one Term only, and £2 for each Course extending over more than one Term of a Session, when attended for the first time, and £1 for each re-attendance on the same.

This rule applies in all cases except the following:—

The Fee payable for the Course of Anatomy and Physiology is £3, when attended for the first time, and £2 for every subsequent attendance; and the Fee payable for Practical Anatomy or Practical Chemistry is £3 for each attendance.

The Fee payable for attendance upon any Honor Course of Lectures in the third year, which Students are entitled to substitute for a prescribed Pass Course, is £3.

In all other cases the Fees payable for attendance upon Honor Courses of Lectures, and upon Courses of Special Instruction not prescribed as a qualification for a Degree or other University distinction, are £2 for each Course, whether attended for the first time or re-attended.

This rule does not apply to special instruction in Practical Chemistry and in Operative Surgery. In the former case, the Fee is regulated by the time spent in the laboratory, at the rate of £1 a month. The Fee for Operative Surgery is £3.

Matriculated Students who attend voluntary Courses are, so far as these Courses are concerned, regarded as Non-Matriculated.

Table showing in each case the *minimum* amount of Fees payable by Students to the College and for attendance on the several prescribed Courses of Lectures and Instruction.

	First Session.			Second Session.			Third Session.			Fourth Session.		
	£	*s.*	*d.*	£	*s.*	*d.*	£	*s.*	*d.*	£	*s.*	*d.*
For the Degree of B.A.,	9	10	0	7	5	0	8	5	0	—		
If a Scholar,	5	0	0	3	15	0	4	5	0	—		
For the Degree of M.D.,*	12	10	0	12	5	0	10	5	0	4	5	0
If a Scholar,	7	0	0	6	15	0	5	15	0	2	5	0
For the Diploma of Elementary Law,	4	10	0	4	5	0	2	5	0	—		
If a Scholar in Law,	2	10	0	2	5	0	1	5	0	—		
For the Degrees of LL.B. and LL.D.,	13	10	0	11	5	0	10	5	0	—		
If a Scholar in Arts,	9	0	0	7	15	0	6	5	0	—		
If a Scholar in Law,	11	10	0	9	5	0	5	5	0	—		
For the Diploma of Civil Engineering,	10	10	0	10	5	0	8	5	0	—		
If a Scholar,	5	10	0	5	5	0	4	5	0	—		
For the Diploma of Licentiate in Arts,	7	10	0	9	5	0	—			—		

In all cases the Fees are payable in two instalments. The first instalment includes the College Fee—which is 10*s.* for the first year, and 5*s.* for every subsequent year—and a moiety of the Class Fees payable to the several Professors whose lectures are prescribed in the curriculum. This first instalment is payable at the commencement of the First Term in which the Student enters. The second instalment—consisting of the remaining moiety of the Class Fees—is payable at the commencement of the Second Term. Scholars are exempted from the payment of this latter moiety.

Residences.

It is provided by the Statutes that every Matriculated Student under the age of twenty-one years shall reside, during the College Terms, with

* The Sums entered above are the Fees for the Classes usually taken.

Appendix D. Regulations of the College.

his parent or guardian, or with some relation or friend to whose care he shall have been committed by his parent or guardian, or in a Boarding-house, licensed by the President of the College, and arranged for the reception of Students, where he shall be placed under the moral care and spiritual charge of the Dean of Residences of his creed.

Discipline.

All Matriculated Students are required to wear a cap and gown.

A penalty of sixpence shall be imposed on any Student who shall appear within the quadrangle without his cap and gown.

The Porter at the lodge is instructed to report to the Bursar the name of any Matriculated Student who shall appear within the quadrangle without his cap and gown, and also to intimate to the Student at the time that he will be reported.

Any Student so reported shall pay the fine to the Bursar within one week, without receiving further notice, and the fine shall be doubled every week that the fine remains unpaid.

A Professor may inflict a fine not exceeding 2*s.* 6*d.* on any Student for any breach of discipline in his class which he does not consider of sufficient importance to bring under the notice of the Council.

Members of the Library Committee may inflict a fine not exceeding 2*s.* 6*d.* on any Student, for any breach of discipline in the Library, which they do not consider of sufficient importance to bring under the notice of the Council.

Library Regulations.

The Library is open from the commencement of the Session to the 1st of March, between the hours of 10 A.M. and 4 P.M., and from the 1st of March to the 1st of July, between the hours of 10 A.M. and 5 P.M., except (1) on College holidays; (2) for a period of five days in the Christmas and Easter recesses respectively.

The Library is closed during the month of July, except for one hour each week, when the Librarian attends to issue books. From the 1st of August to the commencement of the College Session the Library is open between the hours of 11 A.M. and 3 P.M.

No Student is admitted to the Library without subscribing the following declaration:—

> We the undersigned do hereby promise to the President and Council of the Queen's College, Galway, that we will not mark, turn down the leaves of, or write on paper placed upon, or in any way whatsoever soil, deface, injure, or remove, without permission, any book or document in the Library of said College. We also promise that we will not injure the Library furniture; that we will faithfully observe all the rules made for the regulation of the Library, and that we will acquaint the College Authorities with any serious instance of violation of the above rules which may come under our notice.

No Student can borrow books from the Library until he has deposited the sum of £1 with the Bursar.

No Student can have more than two volumes on loan from the Library at the same time.

No Student can retain a volume borrowed from the Library more than one week; but the borrower, on returning the book, may renew the loan, if the book has not been in the meantime applied for.

Any Student, on receiving at any time a notice from the Librarian, must return, within twenty-four hours, the books belonging to the Library in his possession.

Any person losing or injuring a book belonging to the Library must replace it by another copy of the same edition and of equal value, or pay such a sum of money as will enable the College to replace it.

FACULTY OF ARTS.

The Degrees of B.A. and M.A.

1.—*The Degree of Bachelor in Arts.*

Candidates for the Degree of B.A. in the Queen's University, must on entering Queen's College, Galway, pass the following Matriculation Examination.

THE GREEK LANGUAGE.

Any one of the following Authors which the Candidate may select:—

Homer—Iliad, Books I. and II.
Xenophon—Anabasis, Books I. and II.
Note.—A paper will be set in Greek Grammar, touching on declensions, conjugations, and rules of Syntax.

THE LATIN LANGUAGE.

Any one of the following authors which the Candidate may select:—

Virgil—Æneid, Books I.-V.
Horace—Odes, Book I.; Satires, Book I.
Sallust—Conspiracy of Catiline, and Jugurthine War.
Cæsar—Gallic War, Books V., VI.
Note.—A paper will be set in Latin Grammar.

HISTORY AND THE ENGLISH LANGUAGE.

History, Grecian and Roman, Outlines of.
Geography, Ancient and Modern, Outlines of.
Grammar, English Grammar, and Composition.

MATHEMATICS.

Arithmetic—Including Vulgar and Decimal Fractions, the Rule of Three, Simple Interest, and the Extraction of the Square Root.
Algebra—Including Fractions, Proportion, and the Solution of Simple Equations.
Geometry—Euclid, Books I., II.

Students are admitted to the University Examination for this Degree who, after having passed the Matriculation Examination, have attended the College Lectures for at least two full terms in each Session, have passed the prescribed College Examinations, and are recommended for promotion to the Degree by the President of the College.

The Session extends from the third Tuesday in October to the second Saturday in the following June, with short recesses at Christmas and Easter. Each Session consists of three Terms.

The studies for the Degree of Bachelor in Arts extend over three Sessions, and comprise attendance on the following Curriculum:—

FIRST SESSION.

English (One Term).
Greek.
Latin.
A Modern Continental Language.
Mathematics.

SECOND SESSION.

Logic (One Term).
Natural Philosophy.

Along with any two of the following:—

Greek (Second Course).
Latin (Second Course).
A Modern Continental Language (Second Course).
Mathematics (Second Course).

Appendix D.

Regulations of the College.

THIRD SESSION.

English Language and Literature.
Metaphysics, or History, or Political Economy (Two Terms).
Chemistry.
Zoology, or Botany.

Attendance on these Courses includes passing such Examinations as may be appointed by the College Council, and the catechetical parts of the Courses of Lectures.

In each College there is a General Examination in the subjects upon which lectures have been delivered during the Session. There is also a Supplementary Examination in the same subjects, at the commencement of the following Session. All Students must pass either the General Examination or the Supplementary Examination, before they proceed with the course of the succeeding year.

Candidates for the Degree of Bachelor in Arts must reside at their respective Colleges during at least the first two Terms of each Session, but may be exempted from residence during the third Term by a special grace of the College Council.

Third year's Students may substitute attendance on one or on two Courses of Honor Lectures, for attendance upon a like number of the Courses above set down for study in the Third Session.

Under this regulation Candidates are at liberty to substitute one or two of the following Courses for a like number of the Courses set down above, for study in the Third Session, viz. :—

Greek,	Geology and Physical Geography,
Latin,	French,
Pure Mathematics,	German,
Mathematical Physics,	Italian,
Experimental Physics,	Logic;

provided that the rules of the College Council admit of their making this substitution, and provided further that the Courses substituted are Courses specially preparing Students for one or more of the Honor Examinations for the Degree of B.A.

Candidates are allowed under the same conditions to attend Honor Courses on two of the subjects, Metaphysics, History, and Political Economy, as two of the Courses of the Third Session. Candidates who avail themselves of this permission are at liberty to attend the third of these subjects as another Course of the Third Session.

A similar interpretation applies to the Courses of Botany and Zoology, which will count as two Courses of the Third Session, provided that one of them be an Honor Course, attended under the conditions stated above.

Candidates for the Degree of Bachelor in Arts are required to pass two University Examinations—the Previous Examination held simultaneously in each of the Colleges of the University, and the Degree Examination held in the Hall of the University in Dublin.

Students who have completed their second Session must pass the Previous Examination before rising to the third year, unless prevented by illness or other inevitable accident, in which case the Senate may admit them to a Supplementary Examination.

For the regulations as to the First University Examination in Arts, and the Examination for the Degrees of B.A. and M.A., see the "University Regulations."

For the Exhibitions awarded at the First University Examination in Arts, see p. 51.

DAYS AND HOURS OF LECTURES.

	Subjects.	Terms.	Mon.	Tues.	Wed.	Thurs.	Friday.	Sat.
1st Year	French,	1, 2, 3,	.	.	.	10	.	10
	German,	1, 2, 3,	.	10	.	.	10	.
	Latin (pass),	1, 2, 3,	12	.	12	.	12	.
	Greek (pass),	1, 2, 3,	.	12	.	12	.	12
	Mathematics (pass),	1, 2, 3,	1	.	1	.	1	.
	English,	2,	11	.	11	.	11	.
	Latin (honor),	1, 2, 3,	.	11	.	11	.	11
	Greek (honor),	1, 2, 3,	12	.	12	.	12	.
	Mathematics (honor),	1, 2, 3,	.	1	.	1	.	.
2nd Year	French,	1, 2, 3,	10	.	10	.	.	.
	German,	1, 2, 3,	.	12	.	12	.	.
	Greek,	1, 2, 3,	.	11	.	11	.	11
	Latin,	1, 2, 3,	11	.	11	.	11	.
	Mathematics (pass),	1, 2, 3,	.	1	.	1	.	.
	Natural Philosophy (pass),	1, 2, 3,	12	.	12	.	.	.
	Logic,	2,	1	.	1	.	1	.
	Mathematics (honor),	1, 2, 3,	12	.	12	.	12	.
	Natural Philosophy (honor),	1, 2, 3,	.	10	.	10	.	.
3rd Year	Zoology or Botany,	1, 2, 3,	.	11	.	11	11	11
	Chemistry,	1, 2, 3,	12	.	12	.	12	12
	English Language and Literature,	1, 2,	3	.	3	.	3	.
	Metaphysics,	1, 2,	.	1	.	1	.	1
	History,	1, 2,	2	.	2	.	2	.
	Logic,	1, 2,	.	12	.	12	.	12
	French,	–	.	.	.	11	.	11
	German,	–	.	11	.	.	11	.

JUNIOR SCHOLARSHIPS IN ARTS.

Of the Thirty Junior Scholarships appropriated to Students in the Faculty of Arts :—

Ten are tenable by Students of the First Year.
Ten " " Second Year.
Ten " " Third Year.

Of the ten Junior Scholarships in Arts tenable by Students of each year, five are awarded for proficiency in literary studies, and five for proficiency in scientific studies; but it is competent for the Council, in case Scholarships in either department are withheld on the ground of insufficient answering, to assign the unawarded Scholarships to the other department.

The Examination for Junior Scholarships in Arts of the first year takes place immediately after the first Matriculation Examination of the Session, and is open to all Students of the first year, who have passed that Examination, and have paid the regulated fees. Those candidates to whom Scholarships are then awarded hold their Scholarships for one year.

There is a further Examination, at the commencement of the second year, which is open to all Matriculated Students in Arts of that year who have passed the Examination and attended the lectures prescribed to Students of the first year, and who have paid the regulated fees.

Those Candidates to whom Scholarships are awarded at this further Examination, hold their Scholarships for two years, provided (1) they answer sufficiently in two Honor Courses at the Sessional Examination of the second year; (2) they pass the First University Examination for the Degree of B.A.

If any Student be placed, at the Examinations for Junior Scholarships in Arts, first on both the lists of candidates, he is entitled to a Scholarship of each division; but in no other case can two Scholarships be held by the same Student.

Appendix D.

Regulations of the College.

SCHOLARSHIP EXAMINATIONS.—SESSION 1876-7.

Literary Scholarships, First Year.

THE GREEK LANGUAGE.

Homer—Iliad, Books XVIII. and XXII.
Sophocles—Philoctetes.
Xenophon—The Anabasis, Books I., II., and III.

NOTE.—A paper of questions will be set in Greek Grammar, touching upon declensions, conjugations, ordinary rules of Syntax, and idiomatic constructions.

THE LATIN LANGUAGE.

Virgil—The Æneid, Books I., II.
Horace—The Odes, Books I., II.
Cicero—Pro Lege Manilia.
Sallust—Jugurthine War.
Livy—Book I.
Cæsar de Bello Gallico, Book I.
A paper on Latin Grammar.

COMPOSITION.

In Greek, Latin, and English Prose.*

HISTORY AND GEOGRAPHY.

Grecian History, to the Death of Alexander.†
Roman History, to the Accession of Augustus.‡
Outlines of Ancient and Modern Geography.§

Science Scholarships, First Year.

MATHEMATICS.

Arithmetic :—
Including Vulgar and Decimal Fractions, the Rule of Three, Simple Interest, and the Extraction of the Square Root.

Algebra :—
Including the Solution of Simple and Quadratic Equations; Arithmetical and Geometrical Progressions; Permutations and Combinations; the Binomial Theorem; the nature of Logarithms.

Geometry :—
Euclid, Books I., II., III., IV., and VI., with definitions of Book V.

Plane Trigonometry :—
So far as to include the Solution of Triangles.

The use of Logarithmic and Trigonometrical Tables.

Literary Scholarships, Second Year.

THE GREEK LANGUAGE.

Homer—Iliad, Books XVI., XVIII., XXI., and XXII.
Æschylus—Prometheus Vinctus.
Sophocles—Œdipus Rex.
Euripides—Phœnissæ.
Thucydides—Book III.

THE LATIN LANGUAGE.

Cicero—Philippics, 10-14.
Cicero—Letters to his brother Quintus, Book 3.
Tacitus—Annals, Book 16.
Terence—Hecyra.
Plautus, Captivei.
Ovid—Metamorphoses, Book 13.
Catullus—Car. 64.
A piece of unprepared Latin.

* Rev. T. K. Arnold's Introductory Works on Greek and Latin Prose Composition are recommended, and the last edition of Dr. Clyde's Handbook to Greek Syntax (Boyd, Edinburgh).

† Dr. William Smith's History of Greece is recommended.

‡ Liddell's Roman History is recommended.

§ Dr. William Smith's Handbook of Ancient Geography is recommended.

THE ENGLISH LANGUAGE.

Bain's English Grammar.

Johnson's Vanity of Human Wishes.
Gray's Elegy and Bard.
Goldsmith's Traveller and Deserted Village.
Coleridge's Ancient Mariner.
(In Hales' "Longer English Poems.")

Macaulay's Essays on Clive and Hastings.

MODERN LANGUAGES.

French :—

The Modern French Reader. Prose. Senior Course by Cassal and Karcher—(London: Trübner and Co.) page 211.

Translation from English into French (from materials for translating English into French, Otto, pages 1–50).

Or, German :—

1. Lessing—Müma von Barnhelm.
2. Otto—German Reader, I. part.
3. Otto—German Grammar, 12th Edition, to Syntax (page 266).
4. Translation from English into German.

HISTORY AND GEOGRAPHY.

As in the First Year.

COMPOSITION.

In Greek, Latin, and English Prose.

Science Scholarships, Second Year.

MATHEMATICS.

The Course appointed for Science Scholarships of the first year.

Algebra :—

Nature and Simple Transformations of Equations; the Solution of Cubic and Biquadratic Equations; Method of Indeterminate Co-efficients.

Geometry :—

Elements of Solid Geometry.

Trigonometry :—

Plane and Spherical.

Analytic Geometry :—

Discussion of the Equations of the Right Line and Circle.

The Professor's Lectures to the Class of the First Year.

Senior Scholarships.

The College is empowered to award Seven Scholarships, of the value of forty pounds each, by examination, to any Graduate in Arts of the Queen's University, of not more than three years' standing, whose answering is reported as meritorious, provided he shall not have previously obtained a Scholarship in the same department in this or in either of the other Queen's Colleges. Of these Scholarships one is awarded for proficiency in each of the following departments :—*

1. The Greek and Latin Languages and Ancient History.
2. The Modern Languages, and Modern History.
3. Mathematics.
4. Natural Philosophy.
5. Metaphysical and Economic Science.
6. Chemistry.
7. Natural History.

*The Examinations for these Scholarships will commence on Thursday, 19th October, with the exception of that in the Greek and Latin languages and Ancient History, which will be held at the close of the first Term.

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I.—GREEK AND LATIN LANGUAGES, AND ANCIENT HISTORY.

The Greek Language :—

Thucydides—Books III. and VI.
Demosthenes—De Coronâ.
Aristophanes—The Wasps and The Knights
Sophocles—Œdipus Rex and Œdipus Colonëus.
Translation from a passage of unprepared Greek.
Composition in Greek Prose.

The Latin Language :—

Cicero—Philippics.
Virgil—Æneid, VII.–XII.
Plautus—Menœchmi.
Juvenal and Persius.
Catullus—Ellis' Selections.
Lucretius, IV.–VI.
Ovid—Mett, 1–5.
Translations from unprepared Latin.
Composition in Latin Prose.

II.—MODERN LANGUAGES AND MODERN HISTORY.

The English Language :—

Chaucer—Prologue to the Canterbury Tales.
Shakespere—Hamlet and Julius Cæsar.
Milton—Paradise Lost, Books I.–II.
Dryden's Absalom and Achitophel.
Dr. Johnson's Lives of Milton and Dryden.
Burke's Thoughts on the Present Discontents, and the two Speeches on America.

The French Language :—

L'Honneur et l'Argent, Ponsard.
Molière—l'Avare.
Racine—Phèdre.
Geruzez—Histoire abrégée de la Littérature Française, from page 153 to the end.
Brachet's Grammaire Historique de la Langue Française.
Translation from English into French (partly from Cogery's Third French Course).

The German Language :—

Whitney—German Reader.
Apel—German Prose.
Göthe—Tasso, Acts I. and II.
Buchheim—Deutsche Lyrik (4th and 5th period).
Translation from English into German.

Modern History :—

History of Great Britain and Ireland from 1603 to 1830.
History of France during the same period.

III.—MATHEMATICS.

The Mathematical Course appointed for the Science Scholarship of the second year ; theory of Algebraical Equations, including their numerical solution ; Analytic Geometry of two and of three dimensions ; Differential and Integral Calculus, including its application to Geometry.

IV.—NATURAL PHILOSOPHY.

Todhunter's Statics.
Tait and Steele's Dynamics, and Routh's Dynamics of a Rigid body.
Walton's Hydrostatical Problems.
Parkinson's Optics.
Hymer's Astronomy.
Jamin's Traité de Physique.
Lloyd's Lectures on the Wave Theory of Light.
The Professor's Lectures to the Honor Class of the Third Year.

V.—METAPHYSICAL AND ECONOMIC SCIENCE.

Metaphysics :—

The Philosophical Systems of Descartes, Locke, Berkeley, and Kant.
Sir William Hamilton—Lectures on Metaphysics, XVI. to XL.
Mill—Examination of Sir William Hamilton's Philosophy, Lectures VIII. to XV., both inclusive.
Webb—Intellectualism of Locke.

Jurisprudence :—

Jurisprudence as treated in the Professor's Lectures.
Austin's Jurisprudence.
Maine's Ancient Law.
Modern Roman Law by Tomkins and Jenckens.

Political Economy :—

Political Economy as treated in the Professor's Lectures.
Mill's Principles of Political Economy.
Ricardo's Political Economy, chapters VII. to XVI.
Senior's Political Economy.
Cairnes' Logical Method of Political Economy.
Göschen's Foreign Exchanges.
Price's Currency.

VI.—CHEMISTRY.

Theoretical Chemistry :—

Miller's Element of Chemistry (fourth edition).
Wurtz' Introduction to Chemical Philosophy.
Hoffman's Modern Chemistry.
Watt's Dictionary of Chemistry.
Fownes' Chemistry (eleventh edition).

Practical Chemistry :—

Analysis, and an acquaintance with Manipulation to the extent to which it is carried out in the *Practical Course* prescribed for Medical Students will be considered the minimum. (Bowman's Introduction to Practical Chemistry is recommended.)

VII.—NATURAL HISTORY.

Sach's Text Book of Botany (translated).
Henfrey's Botany (second edition).
Rolleston's Animal Forms.
Huxley's Anatomy of Vertebrated Animals.
Nicholson's Zoology.
Practical Examinations in Botany and Zoology.

PRACTICAL COURSE FOR COMMERCIAL AND GENERAL PURSUITS.

In order to extend the advantages of higher education to youths intended for commercial and general pursuits, the Senate has resolved to institute special courses of instruction, and to grant Diplomas, conferring the title of Licentiate in Arts, under the following conditions :—

1. To have matriculated in one of the Colleges of the Queen's University.
2. To have pursued, in one of the Colleges of the Queen's University, the course herein prescribed.
3. To have passed the University Examination herein prescribed.

The studies for the Diploma of Licentiate in Arts extend over two Sessions, and comprise attendance on the following Curriculum :—

First Session.

Two Languages, of which one may be English.
Mathematics.
Another Course on any subject in the annexed list.

Second Session.

Greek, Latin, or a Modern Continental Language.
Logic (one Term).
Natural Philosophy.
And two other Courses on subjects in the annexed list.

If any of the courses, except that on Logic, extend over one term only, some other course from the annexed list must be attended as a supplement to it, but not necessarily in the same Session.

Credit will not be given for attending the same course of Lectures a second time.

Attendance on the courses is, in all cases, understood to include passing such Examinations as the College Council shall appoint, and the catechetical parts of the courses of Lectures.

Candidates for the Diploma of Licentiate in Arts must reside at their respective Colleges during at least the first two terms of each Session.

After having completed the above curriculum, each Candidate for the Diploma is required to pass a University Examination in either Greek, Latin, or a Modern Continental Language; in Mathematical Science;

Appendix D. — Regulations of the College.

and in two other subjects which he is allowed to select from the annexed list, viz.:—

The Mathematical Sciences.	The Modern Continental Languages.
The Experimental Sciences.	Greek.
The Natural Sciences.	Latin.
Geometrical Drawing.	Logic.
Mensuration, Levelling, and Mapping.	Metaphysics.
Anatomy and Physiology.	History.
English Language and Literature.	Political Economy.

English Composition forms a part of all University Examinations.

Licentiates in Arts who may desire to proceed to the Degree of Bachelor in Arts, may enter directly on the second Session in the course for this Degree, provided they attend in it, instead of the usual curriculum, all the courses prescribed for the first two years which they shall not have already attended in the curriculum for the Diploma of Licentiate.

In compliance with the first of the above specified conditions, the Council of the Queen's College, Galway, has instituted the following course for the Matriculation Examination:—

MATHEMATICS.

Arithmetic—Including Vulgar and Decimal Fractions, the Rule of Three, Simple Interest, and the Extraction of the Square Root.
Algebra—Including Fractions, Proportion, and the Solution of Simple Equations.
Geometry—Euclid, Books I., II.

GEOGRAPHY AND THE ENGLISH LANGUAGE.

Geography—Ancient and Modern, Outlines of.
Grammar—English Grammar and Composition.

The Council will confer two Exhibitions—one of the value of £16, and one of the value of £12—on the best answerers in the Course for Matriculation, should their answering be found to deserve such a reward.

Candidates for Exhibitions shall be allowed to offer, in addition to the subjects of the ordinary Matriculation Examination, one or two, but not more, of the following subjects:—

Latin, French, German, Chemistry, Natural Philosophy, Natural History; these subjects to be of equal value with the ordinary subjects, and with each other.

No Student who has held a Scholarship or Exhibition in any of the existing Faculties or Schools shall be admitted a Candidate for these Exhibitions.

FACULTY OF LAW.

Diploma of Elementary Law.

Candidates for the Diploma of Elementary Law are required to pass a matriculation Examination in the following subjects:—

GREEK.

Xenophon—Anabasis, Book I.
Grammar; orally, and by paper.

LATIN.

One of the following authors:—

Cæsar—Gallic War, Book V.
Virgil—Æneid, Book I.
Grammar; orally, and by paper.

HISTORY AND THE ENGLISH LANGUAGE.

History—Outlines of Grecian and Roman History.
Geography—Outlines of Ancient and Modern Geography.
English—English Grammar and Composition.

MATHEMATICS.

Arithmetic—including Vulgar and Decimal Fractions, the Rule of Three, Simple Interest, and the Extraction of the Square Root.
Algebra—including Fractions, Proportion, and the Solution of Simple Equations.
Geometry—Euclid, Books I., II.

Students who have passed the Matriculation Examination, and have pursued, during three years, the following courses of study, are admitted to Examination for the Diploma of Elementary Law :—

FIRST YEAR.

The Law of Property, and the Principles of Conveyancing.
Jurisprudence.

SECOND YEAR.

Equity and Bankruptcy.
Civil Law.

THIRD YEAR.

Common and Criminal Law.
Civil Law and Jurisprudence.

Candidates who shall have passed the First and Second Sessions of the curriculum for the Degree of B.A., before entering on their legal studies, will be admitted to the Examination for the Diploma after attending a two years' curriculum in Law, if recommended by the Council of their College. Other Candidates shall attend Law Courses for three Sessions before presenting themselves.

Candidates who intend to proceed to the Diploma after attending a two years' curriculum in Law will be required to attend during each Session Honor Courses of Lectures by each Professor, embracing all the subjects included in the curriculum for three Sessions.

JUNIOR SCHOLARSHIPS IN LAW.

Of the three Junior Scholarships appropriated to the Faculty of Law, one is awarded to a Student of the First Year, one to a Student of the Second Year, and one to a Student of the Third Year.

SUBJECTS OF EXAMINATION.—FIRST YEAR.

LAW OF PROPERTY, &c.

Williams' Real Property.

JURISPRUDENCE AND CIVIL LAW.

Review of Austin's Jurisprudence, by J. S. Mill (*Edinburgh Review*, October, 1863; or Mill's Dissertations and Essays, Vol. III.)
Maine's Ancient Law, Chaps. I., II., III., V., IX.
Sandars' Institutes of Justinian, Introduction.

SECOND YEAR.

All the business of the preceding Session.

EQUITY.

Smith's Manual of Equity Jurisprudence.

LAW OF PROPERTY, &c.

Williams' Personal Property; Smith's Lectures on the Law of Contract

JURISPRUDENCE AND CIVIL LAW.

The same as the course for the first year, together with

Jurisprudence as treated in the Professor's Lectures.
Austin's Jurisprudence, Vol. I., third edition.
Sandars' Justinian, Books I. and II.
Maine's Ancient Law.
Poste's Gaius, Books I. and II.

Appendix D.

Regulations of the College.

THIRD YEAR.

All the business of the two preceding Sessions.

LAW.

Broom's Commentaries on the Common Law, Books II., III., and
White and Tudor's Leading Cases in Equity, Vol. I.
Stephen on Pleading.

JURISPRUDENCE AND CIVIL LAW.

The same as the course for the second year, together with

Jurisprudence as treated in the Professor's Lectures.
The remainder of Austin's Jurisprudence
The remainder of Sandars' Justinian.
The remainder of Poste's Gaius.

THE DEGREES OF LL.B. AND LL.D.

Candidates for the Degree of LL.B. are admitted to Examination for that Degree from the Queen's University in Ireland, one year after they have obtained the Degree of B.A., and completed the above curriculum for the Diploma in Elementary Law.

Candidates for the Degree of LL.D. are admitted to Examination for that Degree from the Queen's University in Ireland, at the expiration of two years after they have obtained the Degree of LL.B.

SENIOR SCHOLARSHIP.

The College is empowered to award one Scholarship of the value of forty pounds, by Examination, to the most distinguished Student who shall have proceeded to the Degree of B.A., and who shall have attended during three Sessions, and have completed the Course of legal study herein prescribed to Students of the first, second, and third Sessions. The following is the course prescribed for Examination :—

JURISPRUDENCE AND CIVIL LAW.

The same as the course in these subjects for the third year's Scholarship, together with

Spence's Equitable Jurisdiction of the Court of Chancery, part I.

PRINCIPLES OF CONSTITUTIONAL AND INTERNATIONAL LAW.

Broom's Constitutional Law; Kent's "Lectures on International Law," Abdy's Edition; Letters of "Historicus."

ENGLISH LAW.

All the business of the preceding Sessions, together with

Smith's Leading Cases in Law; White and Tudor's Leading Cases in Equity, vol. 2; Best on Evidence; Archbald's Consolidated Criminal Statutes.

The Senior Scholar will be required to attend, during his year of office, Courses of Lectures on Evidence and Pleading, and on Colonial and Constitutional Law.

PRIVILEGES OF LAW STUDENTS.

By the recent regulations of the Benchers of the King's Inns, candidates for the Bar who attend the Law Lectures in the Queen's Colleges, possess the same privileges as Students who attend the Lectures in Trinity College, Dublin.

Students intending to proceed for the Certificate of the Law Professors, so as to entitle them to serve an apprenticeship of *four* years instead of *five*, under the provisions of *an Act for amending the several Acts for the Regulations of Attorneys and Solicitors* (14 and 15 Vict., cap. 88), are required to enter their names with the Registrar, *either as Matriculated or Non-Matriculated* Students, and pay the necessary College and Class Fees to the Bursar before the commencement of the Law Lectures in each Session.

Such Students are required to attend all the Lectures and pass all the Examinations prescribed for the first and second years of the course of study for candidates for the Diploma of Elementary Law.

FACULTY OF MEDICINE.

Degrees of M.D. and M.Ch.

Each Candidate for the Degree of Doctor in Medicine, or Master in Surgery, is required—

1. To have passed in one of the Colleges of the Queen's University the Entrance Examination in Arts, and to have been admitted a Matriculated Student of the University.
2. To have attended in one of the Queen's Colleges, Lectures on one Modern Continental Language for six months, and Lectures on Natural Philosophy for six months.
3. To have also attended, in some one of the Queen's Colleges, at least two of the courses of Lectures marked with an asterisk in the following list. For the remainder of the courses, authenticated certificates will be received from the Professors or Lecturers in Universities, Colleges, or Schools, recognised by the Senate of the Queen's University in Ireland.
4. To pass three University Examinations—the First University Examination, the Second University Examination, and the Degree Examination.†

The curriculum shall extend over at least four years, and shall be divided into periods of at least two years each.

Candidates are recommended to pass the Matriculation Examination, prior to entering on the second period.

It is recommended that the first period shall comprise attendance on the following courses of medical lectures :—

*Chemistry.
*Botany with Herborizations for practical study, and Zoology.
*Anatomy and Physiology.
*Practical Anatomy.
*Materia Medica and Pharmacy.

And that the second period shall comprise attendance on the following courses of medical lectures :—

Anatomy and Physiology (*second course*).
Practical Anatomy (*second course*).
*Theory and Practice of Surgery.
*Midwifery.
*Theory and Practice of Medicine.
*Medical Jurisprudence.

In addition to the above courses of lectures, candidates shall have attended, during either the first or second period—

A Modern Continental Language (in one of the Colleges of the University).
Experimental Physics (in one of the Colleges of the University).

Also, during the first period—

Practical Chemistry (in a recognised Laboratory).
Medico-Chirurgical Hospital (recognised by the Senate), containing at least sixty beds; together with the clinical lectures therein delivered, at least two each week—a winter session of six months.

And during the second period—

Practical Midwifery, at a recognised Midwifery Hospital, with the clinical lectures therein delivered, for a period of three months; or a Midwifery Dispensary for the same period; or ten cases of Labour under the superintendence of the Medical Officer of any hospital or dispensary where cases of labour are treated.
Medico-Chirurgical Hospital (recognised by the Senate), containing at least sixty beds; together with the clinical lectures therein delivered—eighteen months; including either three winter sessions of six months each, or two winter sessions of six months each, and two summer sessions of three months each.

Medical Examinations are held in June, and in September and October.

† The attention of students is directed to the following Regulation of the Senate:—"After the 1st day of January, 1874, no candidate for the Degree of Doctor of Medicine will be allowed to postpone his University Examination in Modern Languages or in Experimental Physics until such time as he shall present himself for final Examination for that Degree."

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Regulations of the College.

The June Examinations are Pass Examinations, and commence on the Friday preceding the second Saturday in June.

The Honor Examinations commence on the last Tuesday in September, and are followed by Pass Examinations.

Each candidate for examination in June must forward to the Secretary, on or before the first of June, notice of his intention to offer himself as a candidate, along with his certificates; and each candidate for examination in September or October must forward similar notice, along with his certificates, on or before the first of September.

The First University Examination in Medicine.

The First University Examination may be passed either in June or September. It comprises the following subjects:—A Modern Language, Experimental Physics, Zoology and Botany.

It is competent for Students to present themselves for examination in this group of subjects at any time after the close of the First Winter Session.

Before being admitted to examination, each candidate must produce satisfactory evidence of having completed the prescribed courses of study in the subjects of examination.

The portions of Zoology to be prepared are—

a. The general characters of the classes of the Animal Kingdom.
b. The first principles of Animal Physiology.
c. The comparative Anatomy and Classification of either the *Vertebrate* or the *Invertebrate* Animals—whichever is selected by the candidate.
d. A special practical knowledge of the leading characters and classification of either some one Vertebrate class, or some one Invertebrate sub-kingdom.

In Botany Candidates will be examined in the general principles of Vegetable Structure and Organography. They will also be expected to possess a practical acquaintance with the characters of the following natural orders, viz.:—Ranunculaceæ, Cruciferæ, Rosaceæ, Leguminosæ, Umbelliferæ, Compositæ, Scrophulariaceæ, Solanaceæ, Boraginaceæ, Labiatæ, Euphorbiaceæ, Cupuliferæ, Coniferæ, Aroideæ, Orchideæ, Liliaceæ, and Gramineæ.

Henfrey's Elementary Course of Botany is recommended as the Text-Book.

English Composition forms a part of all University Examinations.

Competitors for Honors will be examined in all the subjects of the First University Examination, including Experimental Physics and Modern Languages. The candidates who pass with Honors will be arranged in two classes: they will receive Prizes and Certificates of Honor.

Two Exhibitions, one consisting of two instalments of £20 each, the other of two instalments of £15 each, will be awarded to the best answerers at the Honor Examinations, if they be recommended by the Examiners as possessed of sufficient absolute merit. Further regulations regarding these Exhibitions will be found in p. 52.

Both Honor and Pass Examinations will be held in September. The Examination held in June is a Pass Examination.

The Second University Examination in Medicine.

The Second University Examination may be passed either in June or September. It comprises the following subjects:—Anatomy, Physiology, Materia Medica, and Chemistry; to which will be added Zoology and Botany in the examination of Candidates who have not previously passed the First University Examination. Candidates who are in this position will be allowed either to undergo their Examination in Modern Languages

and Experimental Physics as a part of the Second University Examination, or may present themselves for Examination in these subjects at any time between the Second University Examination and the Degree Examination.

It is competent for students to present themselves for the Second University Examination at the termination of the First Period of the Curriculum, or at any subsequent period; but no Student will be allowed to postpone his Second University Examination until the time when he presents himself for his Degree Examination, unless the Senate shall have passed a grace giving him permission to do so.

Before being admitted to Examination, each candidate must produce satisfactory evidence of having completed the course recommended for study during the First Period of the Curriculum.

Both Honor and Pass Examinations are held in September. The Examination held in June is a Pass Examination.

Degree Examinations in Medicine.

Examinations for the Degree of M.D. and M.Ch., and the Diploma in Midwifery will be held in June and September.

The Fee for each Degree is Five Pounds, and the Fee for the Diploma in Midwifery is Two Pounds, and must be lodged with the Secretary before the Examination begins.

Each Candidate must be recommended by the President of his College, and produce certificates to the following effect:—

1. A certificate from the Secretary of the Queen's University, that he has passed the Previous Examinations, unless the Senate has passed a grace permitting the candidate to present himself for the Examinations simultaneously.
2. From the Council of his College, that he has passed a full Examination in the subjects of study prescribed in the entrance Course of the Faculty of Arts, and has been admitted a Matriculated Student in the Faculty of Medicine.
3. That he has attended in the Colleges of the Queen's University two of the courses marked with an asterisk on p. 41, and also lectures on one Modern Language, and lectures on Experimental Physics.
4. Certificates that he has completed all other prescribed courses.

The Examination for the Degree of M.D. comprises the subjects recommended for study during the second period of Medical Education.

The Examination for the Degree of M.Ch. comprises an examination in the Theory and Practice of Surgery, including Operative and Clinical Surgery.*

The Examination for the Diploma in Midwifery comprises an Examination in the Theory and Practice of Midwifery and the use of obstetrical instruments and appliances.

Candidates who graduate with Honors will be arranged in two classes. Candidates who take a First Class will receive a Medal and Prize. Candidates who take a Second Class will receive a Prize and Certificate of Honor.

The Examination for the Degree with Honors will commence on the last Tuesday in September, and will be followed by the Examination of those candidates who seek to graduate without Honors.

The Examination held in June is a Pass Examination.

Matriculation.

Candidates for the Degree of M.D. in the Queen's University are required to pass a Matriculation Examination in the following subjects :—

* Candidates for the Degree of Master in Surgery, who obtained the Degree of M.D. in this University before the 1st of January, 1865, will be exempted from the Examination in Operative Surgery.

Appendix D.

Regulations of the College.

GREEK.

Xenophon—The Anabasis, Book I., or Gospel of St. John.
Grammar; orally, and by paper.

LATIN.

One of the following authors :—
Virgil—Æneid, Book I.
Cæsar—Gallic War, Book V.
Grammar; orally, and by paper.

ENGLISH.

Grammar and Composition.

HISTORY AND GEOGRAPHY.

History :—
Outlines of Grecian and Roman History.*

Geography :—
Outlines of Ancient and Modern Geography.†

MATHEMATICS.

Arithmetic—Including Vulgar and Decimal Fractions, the Rule of Three, Simple Interest, and the Extraction of the Square Root.
Algebra—Including Fractions, Proportion, and the Solution of Simple Equations.
Geometry—Euclid, Books I., II.

Days and Hours of Lectures.

	Subjects.	Months.	Mon.	Tues.	Wed.	Thurs.	Friday.	Sat.
1st Period.	French,	VI.	9	.	9	.	.	.
	German,	VI.	.	10	.	.	10	.
	Botany and Zoology,	VI.	.	11	.	11	.	11
	Experimental Physics,	VI.	.	12	.	12	.	.
	Chemistry,	VI.	12	.	12	.	12	12
	Logic,		1	.	1	.	1	.
	Anatomy and Physiology,		3	3	3	3	3	.
	Practical Anatomy,		1	1	1	1	1	.
	Practical Chemistry,		2	.	2	.	2	.
	Materia Medica,		.	2	.	2	.	2
2nd Period.	Practical Anatomy,		1	1	1	1	1	.
	Anatomy and Physiology,		3	3	3	3	3	.
	Surgery,		11	.	11	.	11	.
	Midwifery,		2	.	2	.	2	1
	Medicine,		.	2	.	2	.	2
	Medical Jurisprudence,		12	.	12	.	12	.

Opportunities for Hospital attendance and Clinical Instruction are afforded to Students in the County Infirmary and Town Hospitals, which are in the immediate vicinity of the College. Clinical Lectures are given on Tuesdays and Fridays, and Practical Instruction on the other days of the week, at 10, A.M. All communications respecting the Hospitals should be addressed to the Secretary of the Clinical Board, to whom the fee of £4 is payable.

SCHOLARSHIPS.

Eight Junior Scholarships are appropriated to the Faculty of Medicine of the value of £25 each. Of these—

Two are allotted to Students of the First Year.
Two " " Second Year.
Two " " Third Year.
Two " " Fourth Year.

* Chepmell's Short Course of History is recommended.
† Rev. T. K. Arnold's Handbooks are recommended.

Regulations respecting Medical Scholarships and Exhibitions.

(Scholars are required to pay only one-half of the ordinary class fee for each obligatory course of lectures.)

All Scholars and Exhibitioners are required to pass the Sessional Examination.

First Year's Scholarships.

All Students who have passed the Matriculation Examination may compete for the Scholarships of the first year.

For the one Scholarship the Examination will embrace the course prescribed for the Literary Scholarships of the first year, in the Faculty of Arts.

For the other Scholarship the course prescribed for Science Scholarships of the first year in the Faculty of Arts.

If at either of these Examinations a competent candidate do not present himself, the Scholarship assigned to that department may be awarded to the other department, if there be in the latter a second candidate duly qualified.

A Student to whom a Scholarship of the first year has been awarded, shall attend the following courses :—

A Modern Language.
Natural Philosophy.
Anatomy.
Chemistry.
Botany and Zoology.

Second Year's Scholarships.

To be allowed to compete for a Scholarship of the second year, a Student must be of not more than one year's standing in some school recognised by the Senate of the Queen's University.

A Candidate may select for the subjects of his Examination any four of the following subjects, of which Practical Anatomy must be one. The number placed opposite each subject in the following list shall be the standard mark, and no judgment under one-fifth of the standard mark shall be taken into account in any subject :—

Practical Anatomy,	1,000
Anatomy and Physiology,	500
Chemistry,	1,000
Botany,	500
Zoology,	500
A Modern Language,	500
Natural Philosophy,	500

SUBJECTS OF EXAMINATION.

FRENCH.*

The Modern French Reader (Junior Course), by Cassal and Karcher (London: Trübner and Co.).
Translation from English into French (from Otto's French Grammar).

GERMAN.*

Otto: German Reader, I. part.
German Grammar. Otto's German Grammar, to page 266 (Syntax).

Natural Philosophy.—Elements of Mechanics, Hydrostatics, Pneumatics, Acoustics, Optics, Heat, Electricity, Galvanism, and Magnetism.

* The candidate may select either French or German.

Appendix D.

Regulations of the College.

Zoology.—Vertebrata. Practical Examination.

Botany.—Structural and Physiological Botany; Principles of Classification; Characters of the Natural Orders yielding medicinal plants. Practical Examination.

Anatomy and Physiology.—Cartilage, Bone, the Fibrous Tissues, Muscle, Nerve, Integument and Appendages, Secretion, Digestion, and Reflex Action.

Practical Anatomy.—Osteology and Arthrology, also the Myology of the limbs.

Candidates may be examined on specimens placed before them.

Chemistry.—General Principles of Chemical Philosophy; Laws of Combination by weight and volume; Atomic Theory; Nature of Salts, &c.; Chemistry of non-metallic bodies; Chemistry of Metals; Organic Chemistry.

A Student to whom a Scholarship of the second year has been awarded shall attend such of the medical courses assigned to the first period of the curriculum prescribed in the University regulations as he has not already taken. He shall also take a course of Modern Languages and of Natural Philosophy, if he have not previously done so in a Queen's College.

Third Year's Scholarships.

To be allowed to compete for a Scholarship of the third year, a Student must have attended, in some medical school recognised by the Senate of the Queen's University, four of the following courses :—

Anatomy and Physiology.	Practical Chemistry.
Chemistry.	Practical Anatomy.
Botany.	Materia Medica.
Zoology.	

And must not be of more than two years' standing.

The Examination shall include the following subjects. The number placed opposite each subject in the following list shall be the standard mark; and no mark under 300 in any one shall be taken into account :—

Anatomy and Physiology,	1,000
Practical Anatomy,	1,000
Materia Medica and Therapeutics,	1,000
Practical Chemistry,	1,000

Subjects of Examination.

Anatomy and Physiology.—Organs and Functions of Digestion, Absorption, Circulation, Respiration, and Urination, together with the Blood and its Elaboration.

Practical Anatomy.—Joints, Muscles, Vessels, Viscera, and Brain.

During the Examination, Candidates may be called on to make dissections, or to describe structures placed before them.

Materia Medica.—The Medicines and Compounds in the British Pharmacopœia. Candidates will be required to identify specimens.

Practical Chemistry.—As taught in the class.

A Student to whom a third year's Scholarship has been awarded, shall attend, during the year of his election, four at least of the courses prescribed for the second period in the University regulations.

Fourth Year's Scholarships.

To be allowed to compete for a Scholarship of the fourth year, the candidate must have attended, in some school recognised by the Senate of the Queen's University, all the strictly professional courses of the first

period, and must have attended three at least of those of the second period prescribed in the regulations of the Queen's University, and must not be of more than three years' standing.

A candidate for fourth year's Scholarship may choose any four of the following subjects as those in which he shall be examined, provided Anatomy and Physiology be one, and that he have attended lectures on the other three. The number assigned to each subject in the following list shall be the standard mark, and no mark under 300 shall be taken into account:—

Anatomy and Physiology,	1,000
Theory and Practice of Surgery,	1,000
Midwifery and Diseases of Women and Children,	1,000
Theory and Practice of Medicine,	1,000
Medical Jurisprudence,	1,000
Materia Medica and Therapeutics,	1,000

SUBJECTS OF EXAMINATION.

PHYSIOLOGY.—The whole of Physiology, Histology, and Development.

THERAPEUTICS.—Physiological action and Therapeutical effects of the following substances:—Iron, Mercury, Iodine, Arsenic, Aconite, Opium, Digitalis, Alcohol, Nux Vomica, Cinchona. Candidates will be required to write prescriptions.

MEDICINE.—Diseases of the Heart and Lungs.

SURGERY.—Injuries of the Head, Diseases of the Bladder and Urinary Organs.

MIDWIFERY.—Human Fœtus and its involucra; abortion; diseases of parturient women; diseases of childhood.

A Student, to whom a Scholarship of the fourth year has been awarded, shall attend during the year of his election two at least of the following courses, viz., Medicine, Surgery, Midwifery and Medical Jurisprudence; and if more courses are required to complete the curriculum, both as to professional and non-professional subjects, he shall also attend them.

NON-MATRICULATED STUDENTS.

Any course or courses of lectures may be attended by Non-Matriculated Students, without passing any examination, on paying the regulated class fee to each Professor whose lectures they attend. Such Students are admissible to the Library on payment of a fee of Five Shillings for the year.

SCHOOL OF CIVIL ENGINEERING.

Candidates for the Diploma in Civil Engineering are required:—

1. To have been admitted Matriculated Students of one of the Colleges of the Queen's University in the Department of Civil Engineering.
2. To have studied in the Colleges of the Queen's University the course herein prescribed.
3. To have passed two University Examinations.

Candidates for Matriculation are examined in the following subjects:—

MATHEMATICS.

Arithmetic:—

Including Vulgar and Decimal Fractions, the Rule of Three, Simple Interest, and the Extraction of the Square Root.

Algebra:—

Including Fractions, Proportion, and the Solution of Simple Equations.

Geometry:—

Euclid, Books I., II., III., VI., with Definitions of Book V.

Appendix D

Regulations of the College.

HISTORY, GEOGRAPHY, AND THE ENGLISH LANGUAGE.

History :—

Outlines of Ancient History.

Geography :—

Outlines of Ancient and Modern Geography.

English :—

English Grammar and Composition.

The course for the Diploma in Civil Engineering usually extends over Three Sessions, and comprises attendance on the following curriculum:—

FIRST SESSION.

Mathematics (first course).
Chemistry.
A Modern Language.
Geometrical Drawing.
Office Work.

SECOND SESSION.

Mathematics (second course).
Mathematical Physics.
Experimental Physics.
Civil Engineering.
Office Work.
Field Work.

THIRD SESSION.

Natural Philosophy (applied).
Civil and Mechanical Engineering.
Mineralogy, Geology, and Physical Geography.
Office Work.
Field Work.
Engineering Excursions.

Attendance on these courses in all cases includes passing such Examinations as may be appointed by the College Council, as well as the catechetical parts of the courses of lectures.

Engineering Students must reside at their respective Colleges during at least the first two Terms of each Session, and can be exempted from residence during the third Term also, only by a special grace of the College Council.

The study of the Engineering Curriculum may be extended over more than three Sessions, on the recommendation of the College Council, and under such regulations as the Council shall impose. Some relaxation of the order in which the subjects shall be studied will be admitted, on the recommendation of the Council.

Candidates will, on the special recommendation of the College Council, be admitted to the Diploma after two years' residence instead of three, if their previous acquaintance with a sufficient group of the subjects above set down for study in the first and second Sessions is deemed by the Council satisfactory. In such cases the certificate of the Council will be accepted in lieu of attendance upon these courses, but will not exempt candidates from the University Examinations in them.

Candidates for the Diploma in Civil Engineering are required to pass two University Examinations,—the First University Examination and the Diploma Examination, both of which are held in the Hall of the University in Dublin.

Students who have completed their second Session must attempt the First University Examination before rising to the third year, unless prevented by illness or other inevitable accident, in which case the Senate may admit them to a Supplementary Examination.

Candidates who have attempted, but failed to pass, the First University Examination in October, will be admitted to a Supplementary Examination.

Appendix D. Regulations of the College.

First University Examination in Engineering.

The course for the First University Examination includes French; Geometrical Drawing; Mathematics (first course); Mathematics (second course); Mensuration, Levelling, and Mapping; Experimental Physics.

Each candidate must forward to the Secretary, on or before the 1st of October, notice of his intention to offer himself as a candidate, and will thereupon receive intimation of the days upon which his Examination will be held.

The candidates who pass with Honors will be arranged in three classes, the names in each class being placed alphabetically.

Two Exhibitions, one of the annual value of £20 for two years, the other of the annual value of £15 for two years, will be competed for at the Honor Examination. For the regulations regarding these Exhibitions see p. 52.

Examination for the Diploma in Civil Engineering.

The Examination for the Diploma in Civil Engineering will embrace the following course:—Engineering, in all its branches; Mensuration, Levelling and Mapping; Mathematical Physics; Natural Philosophy, applied; Chemistry; Mineralogy, Geology, and Physical Geography. Each candidate will also be required to produce at this Examination the Field-notes and Drawings of a Survey made by him.

Candidates who have completed the Engineering Course may present themselves as candidates for the Diploma, either with Honors or without Honors.

The Examinations for the Diploma in Civil Engineering will commence on the last Tuesday in September, and end on the second Tuesday in October. The Honor Examination will precede the Pass.

Each Candidate must forward to the Secretary, on or before the 1st of September, notice of his intention to offer himself as a candidate, and will thereupon receive intimation of the days upon which his Examination will be held.

The candidates who pass with Honors will be arranged in three classes; the names in each class will be placed alphabetically.

Candidates who take a First Class will receive a Medal and Prize.

Candidates who take a Second Class will receive a Prize.

Candidates who take a Third Class will receive a Certificate of Honor.

Candidates are recommended to provide themselves with drawing instruments and materials, viz.:—a T square; pair of set squares; pair of compasses, with pen and pencil legs; drawing-pen; 12-inch scale, divided on one edge decimally to two chains to an inch, and on the other side, duodecimally to five feet to an inch; an offset scale 20 and 40; also pencils, papers, colours, &c.

Appendix D.

Regulations of the College.

DAYS AND HOURS OF LECTURES.

	Subjects.	Terms.	Mon.	Tues.	Wed.	Thurs.	Friday.	Sat.
1st Year	French,	1, 2, 3,	.	.	.	10	.	10
	German,	—	.	10	.	.	10	.
	Chemistry,	1, 2, 3,	12	.	12	.	12	.
	Mathematics (pass),	1, 2, 3,	1	.	1	.	1	.
	Mathematics (honor),	1, 2, 3,	.	1	.	1	.	.
	Geometrical Drawing,	1, 2, 3,	11	.	11	.	11	.
	Office Work,	1, 2, 3,	2	.	2	.	2	.
2nd Year	Civil Engineering,	1, 2, 3,	1	.	1	.	1	.
	Office Work,	1, 2, 3,	2	.	2	.	2	.
	Mathematical Physics (pass),	.	12	.	12	.	.	.
	Experimental Physics (pass),	1, 2, 3,	.	12	.	12	.	.
	Experimental Physics (honor),	1, 2, 3,	11	.	11	.	.	.
	Mathematical Physics (honor),	1, 2, 3,	.	10	.	10	.	.
	Mathematics (honor),	1, 2, 3,	12	.	12	.	12	.
	Mathematics (pass),	1, 2, 3,	.	1	.	1	.	.
3rd Year	Geology and Mineralogy,	1, 2, 3,	1	.	1	.	1	.
	Civil Engineering,	1, 2, 3,	12	.	12	.	12	.
	Office Work,	1, 2, 3,	2	.	2	.	2	.
	Natural Philosophy (applied),	1, 2, 3,	.	11	.	11	.	.

SCHOLARSHIPS.

Of the five Scholarships appropriated to the Department of Engineering, two are awarded to Students of the first year, two to Students of the second year, and one to a Student of the third year.

SUBJECTS OF EXAMINATION—FIRST YEAR.

The course prescribed for Science Scholarship of the first year.

For this course, see p. 34.

SECOND YEAR.

The course of Elementary Mathematics prescribed for the Science Scholarship of the second year, together with the courses of Chemistry, Modern Languages as prescribed for Literary Scholarship of second year, Office Work, and Geometrical Drawing prescribed in the course for Students in Engineering of the first year.

THIRD YEAR.

The courses of Mathematics, Mathematical and Experimental Physics, Mineralogy and Geology, Engineering and Office Work, prescribed to Honor Students of the second year.

INDIAN ENGINEERING ESTABLISHMENT.

The following notice has been issued by order of the Secretary of State for India, in Council:—

"India Office, September 27th, 1871.

"Notice is hereby given that appointments to the Indian Public Works Department, of Assistant Engineer, second grade, salary, 4,200 rs. (about £420) per annum, will be available in 1874 for such Candidates as may be found duly qualified."

Candidates who seek appointments in the Public Works Department in India must pass two Public Examinations; the first, a competitive examination, conducted by the Civil Service Commissioners, and called the Entrance Examination to the Cooper Hill College; the second, a qualifying examination, three years subsequently. No attendance at Cooper's Hill College is requisite for the above appointments.

APPENDIX.

PRIZES FOUNDED BY PUBLIC SUBSCRIPTION.

At a public meeting of the University in October, 1861, Sir Robert Peel offered the sum of £1,200 to found three exhibitions* of £40 each, to be competed for annually for ten years; and he expressed his desire that these prizes should be tenable along with the small Scholarships attached to the Queen's Colleges, in order that his benefaction might have the effect of increasing the value of the rewards provided for the most deserving students.

When announcing this munificent gift, Sir Robert Peel invited others to co-operate with him in thus endeavouring to promote United Education, without adding to the burden on the public purse; and his invitation met with so ready a response, that it became necessary to form a Committee, which should take charge of the subscriptions, and make regulations for the proper allocation of the funds. This Committee consisted of Sir Robert Peel, Bart., M.P. (*Chairman*); the Duke of Leinster; the Lord Talbot de Malahide, F.R.S.; the Right Honorable Abraham Brewster, M.A., Q.C.; Sir James Emerson Tennent, LL.D.; James Naper, D.L.; Alexander Thom, Esq.; Sir Benjamin Lee Guinness, Bart.; William Malcomson, Esq.; and G. Johnstone Stoney, M.A., F.R.S. (*Honorary Secretary*).

Prizes which have been founded.

This munificence on the part of the public has enabled the Committee to found the following prizes, to be competed for annually for ten years; and to place at interest a considerable sum†, which will accumulate and form the nucleus of a fund for continuing these most useful aids to learning beyond that time.

Exhibitions in the Faculty of Arts.

Three exhibitions of £20 a year for three years, three exhibitions of £15 a year for three years, and two exhibitions of £10 a year for three years, will be competed for annually in the Faculty of Arts. The three £20 exhibitions will be awarded to the candidates who stand foremost in order of merit from each College at the First University Examination in Arts; and the three £15 exhibitions to the candidates who stand second in order of merit from each College; provided that their names appear in the First Class of the division list at that examination. Of the two £10 exhibitions, one will be awarded to the best answerer in Mathematical Science, and the other to the best answerer in the Ancient Classics at the First University Examination. The £10 exhibitions are open to the competition of candidates from all the Colleges, and may be held along with one of the larger exhibitions.

Each candidate will be deemed a Student of that College in which he shall have attended the Lectures of the Second Session; and no Student will be admitted to the competition who shall have allowed more than a year to intervene between the time that he entered on the studies of the second year and the time of competition.

* This allocation was afterwards changed, and Sir Robert Peel's benefaction merged in the general fund, in order that it might aid in establishing the connected series of prizes which the support of the public has enabled the Committee to found.

† £1,980 has been already invested, and the sum reserved for accumulation will probably be soon raised to £3,000. It is the intention of the Committee to add to the reserve fund whatever further sums may be at their disposal from lapsed exhibitions or other sources; as it is very important that the assistance which is now being afforded for ten years to students in the Queen's Colleges should not be allowed to come abruptly to an end at the close of that period.

Appendix D.

Regulations of the College

The first instalment of each exhibition will be paid at the time of competition; the second when the exhibitioner takes the Degree of B.A. in the Queen's University, provided he graduate with honors, and within two academic years; and the third when he takes the Degree of M.A. in the Queen's University, provided he obtain it within three academic years from the time of competition.

Exhibitions in the Faculty of Medicine.

Two exhibitions—one consisting of two instalments of £20 each, and the other of two instalments of £15 each—will be competed for annually in the Faculty of Medicine. These exhibitions will be awarded for proficiency in the non-professional part of the First University Examination in Medicine: the £20 exhibition to the best answerer absolutely, in whichever of the Colleges he may have been educated; and the £15 exhibition to the candidate who is first in order of merit of the competitors from the other two Colleges: provided that their names appear in the First Class of the division list at that examination.

Each candidate will be deemed a student of that College in which he shall have attended the lectures of the Second Session; and no student will be admitted to the competition who shall have allowed more than a year to intervene between the time that he entered on the studies of the second year and the time of competition.

The exhibitions in Medicine will be paid in two equal instalments: one at the time of competition; the other when the exhibitioner takes the Degree of M.D. in the Queen's University, provided that he graduate with honors, and within four academic years from the time of competition.

Exhibitions in the School of Engineering.

Two exhibitions—one of £20 a year for two years, and the other of £15 a year for two years—will be competed for annually in the School of Engineering. These exhibitions will be awarded at the First University Examination in Engineering: the £20 exhibition to the best answerer absolutely, in whichever of the Colleges he may have been educated; and the £15 exhibition to the candidate who is first in order of merit of the competitors from the other two Colleges: provided that their names appear in the First Class of the division list at that examination.

Each candidate will be deemed a student of that College in which he shall have attended the lectures of the Second Session; and no student will be admitted to the competition who shall have allowed more than a year to intervene between the time that he entered on the studies of the second year and the time of competition.

The first instalment of each exhibition will be paid at the time of competition; the other when the exhibitioner takes the Diploma in Engineering of the Queen's University, provided that he take honors with it, and obtain it within two academic years from the time of competition.

Prizes in Composition, open to the competition of Graduates and Undergraduates.

Two prizes for English prose composition—one of £10 worth of books and the other of £5 worth of books—have been founded, and are open to the competition of all members of the University who shall not have been graduated for more than three years at the time of competition, and who shall not have already twice obtained one or other of these prizes.

Prizes in Composition, open to the competition of all Undergraduates.

Two prizes in composition—one for English prose, the other for Greek or Latin prose, and each consisting of £5 worth of books—have been founded, and are open to the competition of all undergraduates, provided that neither the English nor the Classical prize be awarded oftener than twice to any student.

Prize in Composition, limited to the competition of Undergraduates in Medicine.

A prize of £5 worth of books has been founded, for a thesis on a subject to be prescribed, and is limited to the competition of the undergraduates in Medicine who shall not have already twice received the prize.

The subjects on which the competitors for composition prizes are to write will be announced on or before the first of June in each year; the compositions, with fictitious signatures, are to be sent in to the Secretary of the University, on or before the first of the following September, and the successful competitors will be declared at the next public meeting of the University.

Prizes at Entrance.

Two prizes for English prose composition, and two prizes for Geometry, have been founded in each College, to be awarded annually at entrance: first prize for English prose composition, £3 worth of books; second do., £2 worth of books: first prize for Geometry, £3 worth of books; second do., £2 worth of books.

All the exhibitions and prizes now founded by public subscription shall be tenable along with any other scholarships, exhibitions, or prizes to which the successful competitors may be otherwise entitled.

Persons who wish to add to this Fund may find the following forms of use:—

FORM OF DONATION.

I enclose Pounds sterling, and desire that this sum be expended in founding Exhibitions or other Prizes to encourage learning and promote industry among the Students and Graduates of the Queen's University in Ireland.

Dated at this day of , 186

(Signed),

To the Right Honorable
Sir ROBERT PEEL, Bart.,
Chairman of the Committee for augmenting the Endowments of the Queen's Colleges.

FORM OF SUBSCRIPTION FOR A TERM OF YEARS.

I enclose as the First Instalment of my Subscription to the *Fund for the Endowment of Prizes, in connexion with the Queen's University in Ireland,* and I will cause an equal sum to be lodged in the Bank of Ireland to the credit of the same Fund, before the first of January in *each* of the next years.

Dated this day of , 186

(Signed),

To the Right Honorable
Sir ROBERT PEEL, Bart.,
Chairman of the Committee for augmenting the Endowments of the Queen's Colleges.

Appendix D.

Regulations of the College.

Examinations for the Civil Service of India.

Regulations for the Open Competition of 1873.*

1. On Tuesday, 1st April, 1873, and following days, an examination of candidates will be held in London. At this examination not fewer than candidates will be selected, if so many shall be found duly qualified. Of these will be selected for the Presidency of Bengal [for the Upper Provinces, and for the Lower Provinces], for that of Madras, and for that of Bombay.†—Notice will hereafter be given of the days and place of examination.

2. Any person desirous of competing at this examination, must produce to the Civil Service Commissioners, before the 1st of February, 1873, evidence showing—

(*a.*) That he is a natural born subject of Her Majesty.

(*b.*) That his age on the 1st March, 1873, will be above seventeen years and under twenty-one years. [*N.B.—In the case of Natives of India this must be certified by the Government of India, or of the Presidency or Province in which the Candidate may have resided.*]

(*c.*) That he has no disease, constitutional affection, or bodily infirmity, unfitting him, or likely to unfit him, for the Civil Service of India.‡

(*d.*) That he is of good moral character;

and must also, before the 1st February, 1873, pay to the said Commissioners such fee as the Secretary of State for India may prescribe.§

3. Should the evidence upon the above points be *prima fâcie* satisfactory to the Civil Service Commissioners, the Candidate will, upon payment of the prescribed fee, be admitted to the Examination. The Commissioners may, however, in their discretion, at any time prior to the grant of the Certificate of Qualification hereinafter referred to, institute such further inquiries as they may deem necessary; and if the result of such inquiries, in the case of any Candidate, should be unsatisfactory to them in any of the above respects, he will be ineligible for admission to the Civil Service of India, and if already selected, will be removed from the position of a Probationer.

4. The examination will take place only in the following branches of knowledge:—

	Marks.
English Composition,	500
History of England, including that of the Laws and Constitution,	500
English Language and Literature,	500
Language, Literature, and History of Greece,	750
" " Rome,	750
" " France,	375
" " Germany,	375
" " Italy,	375
Mathematics, Pure and Mixed,	1,250
Natural Science; that is, (1.) Chemistry, including Heat, (2.) Electricity and Magnetism, (3.) Geology and Mineralogy, (4.) Zoology, (5.) Botany,	1,000
*** The total (1,000 marks) may be obtained by adequate proficiency in any two or more of the five branches of science included under this head.	
Moral Sciences; that is, Logic, Mental and Moral Philosophy,	500
Sanskrit Language and Literature,	500
Arabic Language and Literature,	500

* The regulations are liable to be altered in future years.

† The number of appointments to be made, and the number in each Presidency, &c., will be announced hereafter.

‡ Evidence of health and character must bear date not earlier than the 1st January, 1871.

§ The Fee for this Examination will be £5.

Candidates are at liberty to name, before February 1, 1873, any or all of these branches of knowledge. No subjects are *obligatory*.

5. The merit of the persons examined will be estimated by marks, and the number set opposite to each branch in the preceding regulation denotes the greatest number of marks that can be obtained in respect of it.

6. No candidate will be allowed any marks in respect of any subject of examination unless he shall be considered to possess a *competent knowledge* of that subject.*

7. The examination will be conducted by means of printed questions and written answers, and by *vivâ voce* examination, as may be deemed necessary.

8. The marks obtained by each candidate, in respect of each of the subjects in which he shall have been examined, will be added up, and the names of the candidates who shall have obtained a greater aggregate number of marks than any of the remaining candidates will be set forth in order of merit, and such candidates shall be deemed to be selected candidates for the Civil Service of India, provided they appear to be in other respects duly qualified; and shall be permitted to choose,† according to the order in which they stand, as long as a choice remains, the Presidency (and in Bengal, the division of the Presidency) to which they shall be appointed. Should any of the selected candidates become disqualified, the Secretary of State for India will determine whether the vacancy thus created shall be filled up or not. In the former case, the candidate next in order of merit and in other respects duly qualified, shall be deemed to be a selected candidate.

9. Selected candidates before proceeding to India will be on probation for two years, during which time they will be examined periodically, with the view of testing their progress in the following subjects‡:—

	Marks.
1. Oriental Languages:—	
Sanskrit,	500
Vernacular§ Languages of India (each),	400
2. The History and Geography of India,	350
3. Law,	1,250
4. Political Economy,	350

In these examinations, as in the open competition, the merit of the candidates examined will be estimated by marks, and the number set opposite to each subject denotes the greatest number of marks that can be obtained in respect of it at any one examination. The examination will be conducted by means of printed questions and written answers, and by *vivâ voce* examination, as may be deemed necessary. The last of these examinations will be held at the close of the second year of probation, and will be called the "Final Examination," at which it will be decided whether a selected candidate is qualified for the Civil Service of India.

10. Any candidate who, at any of the periodical Examinations, shall appear to have wilfully neglected his studies, or to be physically incapacitated for pursuing the prescribed course of training, will be liable to have his name removed from the list of selected candidates.

* "Nothing can be further from our wish than to hold out premiums for knowledge of wide surface and of small depth. *We are of opinion that a candidate ought to be allowed no credit at all for taking up a subject in which he is a mere smatterer.*"—Report of Committee of 1854. A deduction of marks will be made under each subject, *including Mathematics*.

† This right must be exercised immediately after the result of the examination is announced, on such day as may be fixed by the Civil Service Commissioners.

‡ Full instructions as to the course of study to be pursued will be issued to the successful candidates as soon as possible after the result of the open competition is declared.

§ Including, besides the languages prescribed for the several Presidencies, such other languages as may, with the approval of the Commissioners, be taken up as subjects of examination.

Appendix D.
Regulations of the College.

11. The selected candidates who at the Final Examination shall be found to have a competent knowledge of the subjects specified in Regulation 9, and who shall have satisfied the Civil Service Commissioners of their eligibility in respect of age, health, and character, shall be certified by the said Commissioners to be entitled to be appointed to the Civil Service of India, provided they shall comply with the regulations in force, at the time, for that Service.

12. Applications from persons desirous to be admitted as candidates are to be addressed to the Secretary to the Civil Service Commissioners, London, S.W., from whom the proper form for the purpose may be obtained.

The Civil Service Commissioners are authorized by the Secretary of State for India in Council to make the following announcements:—

1. Selected Candidates will be permitted to choose,* according to the order in which they stand in the list resulting from the open competition as long as a choice remains, the Presidency (and in Bengal the Division of the Presidency) to which they shall be appointed, but this choice will be subject to a different arrangement, should the Secretary of State or Government of India deem it necessary.

2. No Candidate will be permitted to proceed to India before he shall have passed the Final Examination, and received a certificate of qualification from the Civil Service Commissioners, or after he shall have attained the age of twenty-four years.

3. The seniority in the Civil Service of India of the selected candidates shall be determined according to the order in which they stand on the list resulting from the Final Examination.

4. It is the intention of the Secretary of State to allow the sum of £50 after each of the three first half years of probation, and £150 after the last half-year, to each selected candidate who shall have passed the required Examinations to the satisfaction of the Commissioners, and shall have complied with such rules as may be laid down for the guidance of selected candidates.

5. All selected candidates will be required, after having passed the second periodical Examination, to attend at the India Office for the purpose of entering into an agreement binding themselves, amongst other things, to refund in certain cases the amount of their allowance in the event of their failing to proceed to India. For a candidate under age a surety will be required.

6. After passing the Final Examination, each candidate will be required to attend again at the India Office, with the view of entering into covenants and giving a bond for £1,000, jointly with two sureties, for the due fulfilment of the same. The stamps payable on these documents amount to £1 10*s.*

7. Candidates rejected at the Final Examination of 1873 will in no case be allowed to present themselves for re-examination.

Rules of the Honorable Society of King's Inns, with regard to the Admission of Students into the Society, and to the Degree of Barrister-at-Law.

Admission of Students.

I.—That every person applying to be admitted a Student into this Society shall, in order thereto, present at the Under-Treasurer's Office, three clear days at the least before the first day of term, a memorial in

* This choice must be exercised immediately after the result of the open competition is announced, on such day as may be fixed by the Civil Service Commissioners.

the printed form adopted by the Benchers, which memorial is to be signed and lodged by the person applying to be admitted Student, and the certificate annexed thereto, signed by a practising Barrister of at least ten years' standing.

II.—That every person applying to be admitted a Student, shall pay the sum of one guinea upon application for the form of memorial.

III.—That every person applying to be admitted a Student, on presenting such memorial, shall produce a certificate of having paid at the Stamp Office, the stamp duty of twenty-five pounds sterling, and also pay to the Under-Treasurer the sum of twenty-two pounds ten shillings, including five pounds five shillings for admission to the Library, and five pounds five shillings for Professor's fees—the balance being the fee for admission into the Society as a Student.

IV.—That every Student shall, in addition to the sum of five guineas, Professors' fees paid on admission, also pay the sum of five guineas Professors' fees for every year after the first year, during which he shall attend the lectures of the Professors of the King's Inns.

V.—That every person applying to be admitted a Student, who shall be a graduate or undergraduate of any University, or who shall be a Student of any of the Inns of Court in England, having passed the preliminary examination therein, shall be entitled to be admitted a Student without passing a preliminary examination.

VI.—That every other person applying to be admitted a Student, shall before such admission as a Student, have satisfactorily passed an examination in the following subjects, viz.:—

Latin:—

Cæsar—Commentaries, Books I. and II.
Virgil—Æneid, Books I. to VI.
Horace—Odes, Book I.; Satires and Epistles.

English History:—

The Student's Hume, or, The Abridgment of Lingard's History of England.

English Language and Literature:—

1. English Grammar; Selections from Latham's History of the English Language.
2. The Student's Manual of English Literature.
3. Any three of the following subjects at the Student's election:—
   - *a.* Chaucer—Prologue and Knighte's Tale (Clarendon Press Series).
   - *b.* Spenser's Faërie Queene, Book I. (Clarendon Press Series).
   - *c.* Any three of the following Plays of Shakespere: Julius Cæsar, Macbeth, Hamlet, King John, Henry V., Richard II., Othello, Midsummer's Night Dream, Romeo and Juliet.
   - *d.* Milton's Paradise Lost, omitting Books 5–8, and The Sonnets.
   - *e.* Bacon's Essays: Of Truth, Of Adversity, Of Revenge, Of Atheism, Of Superstition, Of Travel, Of Innovation, Of Nature in Man, Of Building, Of Studies.
   - *f.* Dryden—Absalom and Achitophel, and Religio Laici, or, The Hind and the Panther.
   - *g.* Pope's Essay on Man, and Rape of the Lock.
   - *h.* Byron—Childe Harold.
   - *i.* Tennyson's lesser Poems, as in Edition of 1852, or The Arthurian Legends.
   - *j.* Johnson's Lives of Milton, Dryden, Pope, and Addison.
   - *k.* Macaulay's Essays on Warren Hastings, and Lord Clive, or on Frederick II. (of Prussia), and Lord Chatham.

Keeping Terms.

VII.—That every Student shall keep eight Terms' Commons in the Dining Hall of the Society, and four Terms' Commons in one of the Four Inns of Court in London, and shall be eligible to be called to the Bar in his twelfth term.

VIII.—That every Student shall be enabled to keep terms by dining in the Hall of the Society on two days at least in the term, one day in

Appendix D. Regulations of the College.

the half week commencing on Monday, and one day in the half week commencing on Thursday. No day's attendance in the Hall shall be available for the purpose of keeping term, unless the Student attending shall have been present at the grace before dinner, during the whole of dinner, and until the concluding grace shall have been said.

EDUCATIONAL QUALIFICATIONS.

IX.—That no Student shall be eligible to be called to the Bar who shall not have complied with the following requisites:—

1. Attendance for three whole years at the lectures* of the Professors of the King's Inns. Two courses of lectures to be attended during each year. The Student must produce the certificate of the Professors whose lectures he has attended of such attendance, and of having passed the examination at the end of each course;

or,

2. Attendance for two whole years at the lectures of the Professors of the King's Inns. Two courses of lectures to be attended during each year. The Student to produce the certificate of the Professor whose lectures he has attended of such attendance, and of having passed the examination at the end of each course.

And, in addition, any one of the three following requisites:—

a. Attendance for one year upon two courses of lectures of the Professors of Law in the University of Dublin, Oxford, Cambridge, London, or any of the Colleges of the Queen's University in Ireland.

b. Attendance for one whole year upon the lectures of any two of the Readers in the Inns of Court in England, and passing the examination at the end of each course.

c. Attendance for one whole year as a pupil in the chambers of some practising Barrister in Dublin, or some practising Barrister, Conveyancer, or Special Pleader in London;

or,

3. Attendance for one whole year at the lectures of the Professors of the King's Inns. Two courses of lectures to be attended during the year. The student to produce the certificate of the Professor whose lectures he has attended of such attendance; and in addition the following requisite, viz., production by the Student of the degree of A.B. in the Queen's University, and of certificates of having attended two whole years' courses of lectures of the Law Professors in any of the Queen's Colleges, and of having passed the examinations held by said Professors at the end of each of such years.

The above rule (3) to be retrospective in its operation.

Note.—The word Student† in the above rule (3) shall mean "any person who is admitted as a Student of the King's Inns at any time within one year after he has completed his legal course in any of the Colleges of the Queen's University."

The three years of study above required are not necessarily to be consecutive.

4. In addition to No. 1, No. 2, or No. 3, every Student must pass the General Examination.

X.—That the General Examination required to be passed by all Students before call to the Bar shall be in any three of the following groups of subjects, viz:—1. Jurisprudence, Civil and International Law;

* The subjects of the lectures are published before Hilary, Easter, and Michaelmas Sessions in each year. The three sessions form a course.

† In all other cases the word Student means a person admitted as a Student of the King's Inns.

2. Real Property; 3. Equity; 4. Common Law; 5. History of Law, Constitutional Law, and Criminal Law. That the Prize Examination shall be in all the subjects.*

XI.—That the General Examinations shall be held in the second week of the Easter vacation, and the second week in December in every year.

XII. That an exhibition of twenty guineas per annum to continue for a period of three years shall be conferred on the most distinguished Student at each General Examination; and he shall also be entitled, if so recommended by the Members of the Education Committee, attending at such examination, to be excused from keeping two of the terms in Ireland, and which would otherwise be required for his admission to the Bar.

XIII.—That a prize of twenty guineas shall be conferred on the Student obtaining the second position; and he shall also be entitled, if so recommended by the Members of the Education Committee attending at such examination, to be excused from keeping one of the terms in Ireland, and which would otherwise be required for his admission to the Bar.

XIV.—The Benchers, however, reserve to themselves a discretion of withholding an exhibition or prize in case the Education Committee report that they do not consider the answering sufficiently meritorious. The Examiners may give special certificates of honor to Students failing to obtain the first or second prize, where the answering of any Students may merit such distinction.

XV.—That the list of all the Students passing the General Examination, and arranged in the order of merit, and stating the exhibitions, prizes, privileges, and distinctions conferred on them, respectively, shall be placed in the Hall of the Four Courts, in the Law Library, and in the Lecture Room of the King's Inns.

XVI.—That at any call to the Bar, those Students who have passed the General Examination, and who have obtained exhibitions or prizes thereat, shall take rank in seniority over all other Students who shall be called on the same day, and those who have obtained exhibitions or prizes shall take rank respectively in seniority, according to the rank and date of the exhibitions or prizes obtained by them.

XVII.—That the Students intending to present themselves at the General Examination shall give in their names at the Under-Treasurer's Office, seven clear days before the day of holding such Examination.

Calling to the Bar.

XVIII.—Every Student, having complied with the foregoing rules, desiring to be admitted to the degree of a Barrister-at-Law, and being of the full age of twenty-one years, shall present a memorial, in the printed form adopted by the Benchers, at the Under-Treasurer's Office, three clear days, at the least, before the first day of term, said memorial to be signed by the Student himself; the certificate annexed thereto to be signed by a practising Barrister of at least ten years' standing, and the declaration at foot thereof by a Bencher.

XIX.—Every Student so applying for admission to the degree of a Barrister-at-Law, shall, on presenting his said memorial, pay to the Under-Treasurer the sum of forty pounds, being the payment to the Society thereon, and lodge at the same time a certificate of having paid fifty pounds stamp duty at the Stamp Office, certificates of having complied with the requisites prescribed by rule IX., and a certificate of having kept the requisite number of terms from one of the Inns of Court in England.

* The rules which regulate the times, place, and subjects of examination are published at least three months before the examination, and can be procured at the Office of the Under-Treasurer.

Appendix E.

Scholarship Examinations.

APPENDIX E.

Selections from Scholarship and Sessional Examination Papers, 1875–76.

First Year's Scholarships.

Literary Scholarships.

Greek.—*Examiner, Professor D'Arcy Thompson*, M.A.

1. Decline in full:—(*a.*) The singular number of σατράπης, ζῶον, φύλαξ, ἀνδρίας, μέλι, τεῖχος; and (*b.*) the plural number of ναῦς, ἱερεύς, ὄφις, μέρος, πόλις, ἴχθυς.

2. Enumerate the prepositions that govern three cases, and illustrate the triple usage of each by an example.

3. What is the case that is used absolutely in Greek? State any exceptional usage that you may have observed.

4. Give the first persons singular of the chief tenses of the verbs:—μανθάνειν, εὑρίσκειν, βάλλειν, μάχεσθαι, ὁρᾶν, βαίνειν, πίπτειν, πλεῖν, πέμπειν, ἰέναι, πάσχειν, στέλλειν.

5. What is the root-syllable or stem of the following verbs:—μανθάνειν, λαμβάνειν, εὑρίσκειν, ἱστάναι, τιθέναι, βάλλειν, γιγνώσκειν, στέλλειν, πίπτειν.

6. Give instances of exceptions to the rules for gender for the second declension.

7. Compare *the adverbs* corresponding to the following adjectives:—ἀληθής, κακός, σοφῶς, ἀγαθός, χαριείς, ἡδύς.

8. Write out in full:—

1. The future active of ἀκούω.
2. The aorist active of ἀκούω.
3. The perfect indicative, passive, of γράφειν.
4. The aorist optative, passive, of τέμνειν.
5. The perfect imperative, passive, of τύπτειν.
6. The aorist imperative, middle, of λέγειν.

Note.—After the translation of any passage, you are required to parse fully any word or words to which the figure 1 is therein affixed.

1. Translate the following passages from the *Ajax* of Sophocles:—

(*a.*) τοιαῦτα τοίνυν εἰσορῶν ὑπέρκοπον
μηδέν ποτ' εἴπῃς αὐτὸς ἐς θεοὺς ἔπος,
μηδ' ὄγκον ἄρῃ[1] μηδέν', εἴ τινος πλέον
ἢ χειρὶ βρίθεις ἢ μακροῦ πλούτου βάθει.
ὡς ἡμέρα κλίνει τε κἀνάγει πάλιν
ἅπαντα τἀνθρώπεια· τοὺς δὲ σώφρονας
θεοὶ φιλοῦσι καὶ στυγοῦσι τοὺς κακούς.—(127–133.)

(*b.*) τῶν γὰρ μεγάλων ψυχῶν εἰς[1]
οὐκ ἂν ἁμάρτοις·[1] κατὰ δ' ἄν τις ἐμοῦ
τοιαῦτα λέγων οὐκ ἂν πείθοι.
προς γὰρ τὸν ἔχονθ' ὁ φθόνος ἕρπει.
καίτοι σμικροὶ μεγάλων χωρὶς
σφαλερὸν πύργου ῥῦμα πέλονται·
μετὰ γὰρ μεγάλων βαιὸς ἄριστ' ἂν

καὶ μέγας ὀρθοῖθ' ὑπὸ μικροτέρων.
ἀλλ' οὐ δυνατὸν τοὺς ἀνοήτους
τούτων γνώμας προδιδάσκειν.—(154–163.)

(*c.*) ἄνδρες φίλοι, τὸ πρῶτον ἀγγεῖλαι θέλω,
Τεῦκρος πάρεστιν ἄρτι Μυσίων ἀπὸ
κρημνῶν· μέσον δὲ προσμολὼν στρατήγιον
κυδάζεται τοῖς πᾶσιν Ἀργείοις ὁμοῦ.—(719–722.)

ἐξέτε', ἀδμήτην, βρέφος ἡμίονον κυέουσαν·
αὐτὰρ τῷ τριτάτῳ ἄπυρον κατέθηκε λέβητα,
καλὸν, τέσσαρα μέτρα κεχανδότα,[1] λευκὸν ἔτ' αὖτως·
τῷ δὲ τετάρτῳ θῆκε δύω χρυσοῖο τάλαντα,
πέμπτῳ δ' ἀμφίθετον φιάλην ἀπύρωτον ἔθηκεν.—(262–270.)

(*c.*) σῆμα δέ τοι ἐρέω μάλ' ἀριφραδὲς, οὐδέ σε λήσει.
ἔστηκε ξύλον αὖον, ὅσον τ' ὄργυι', ὑπὲρ αἴης,
ἢ δρυὸς ἢ πεύκης· τὸ μὲν οὐ καταπύθεται ὄμβρῳ,
λᾶε[1] δὲ τοῦ ἑκάτερθεν ἐρηρέδαται[1] δύο λευκὼ
ἐν ξυνοχῇσιν ὁδοῦ, λεῖος δ' ἱππόδρομος ἀμφίς·
ἦ τευ σῆμα βροτοῖο πάλαι κατατεθνηῶτος,
ἢ τόγε νύσσα τέτυκτο ἐπὶ προτέρων ἀνθρώπων,
καὶ νῦν τέρματ' ἔθηκε ποδάρκης δῖος Ἀχιλλεύς.
τῷ σὺ μάλ' ἐγχρίμψας ἐλάαν[1] σχεδὸν ἅρμα καὶ ἵππους,
αὐτὸς δὲ κλινθῆναι ἐϋπλέκτῳ ἐνὶ δίφρῳ
ἦκ' ἐπ' ἀριστερὰ τοῖϊν· ἀτὰρ τὸν δεξιὸν ἵππον
κένσαι[1] ὁμοκλήσας, εἶξαί τέ οἱ ἡνία χερσίν.—(326—337.)

(*d.*) ζωσαμένω δ' ἄρα τώγε βάτην ἐς μέσσον ἀγῶνα,
ἀγκὰς δ' ἀλλήλων λαβέτην χερσὶ στιβαρῇσιν
ὡς ὅτ' ἀμείβοντες, τούς τε κλυτὸς ἤραρε τέκτων,
δώματος ὑψηλοῖο, βίας ἀνέμων ἀλεείνων.
τετρίγει δ' ἄρα νῶτα θρασειάων ἀπὸ χειρῶν
ἑλκόμενα στερεῶς· κατὰ δὲ νότιος ῥέεν ἱδρώς·
πυκναὶ δὲ σμώδιγγες ἀνὰ πλευράς τε καὶ ὤμους
αἵματι φοινικόεσσαι ἀνέδραμον· οἱ δὲ μάλ' αἰεὶ
νίκης ἱέσθην τρίποδος πέρι ποιητοῖο.
οὔτ' Ὀδυσεὺς δύνατο σφῆλαι[1] οὔδει τε πελάσσαι,
οὔτ' Αἴας δύνατο, κρατερὴ δ' ἔχεν ἷς Ὀδυσῆος.—(710–720.)

3. Give very brief biographical accounts of :—Aristides, Alcibiades, Xenophon, Thrasybulus, Demosthenes, Phocion.

4. Draw (1) a map of Northern Greece, marking the divisions of districts, the rivers and mountain-chains; and (2) a map of Asia Minor, marking as before, and adding the chief seaport towns.

1. Translate the following passages, and parse fully the words to which the figure (1) is affixed, and point out peculiarities of construction in words or expressions to which figure (2) is affixed :—

(*a.*) πάντες δ' οὗτοι κατὰ ἔθνη ἐν πλαισίῳ πλήρει ἀνθρώπων ἕκαστον[2] ἔθνος ἐπορεύετο. πρὸ δὲ αὐτῶν ἅρματα διαλείποντα συχνὸν ἀπ' ἀλλήλων τὰ

Appendix E.

Scholarship Examinations.

δὴ δρεπανηφόρα καλούμενα· εἶχον δὲ τὰ δρέπανα ἐκ τῶν ἀξόνων εἰς πλάγιον ἀποτεταμένα[1] καὶ ὑπὸ τοῖς δίφροις εἰς γῆν βλέποντα, ὡς[2] διακόπτειν ὅτῳ[1] ἐντυγχάνοιεν. ἡ δὲ γνώμη ἦν ὡς εἰς τὰς τάξεις τῶν Ἑλλήνων ἐλῶντα καὶ διακόψοντα. ὁ μέντοι Κῦρος εἶπεν ὅτε καλέσας παρεκελεύετο τοῖς Ἕλλησι τὴν κραυγὴν τῶν βαρβάρων ἀνέχεσθαι, ἐψεύσθη τοῦτο· οὐ γὰρ κραυγῇ ἀλλὰ σιγῇ ὡς ἀνυστὸν καὶ ἡσυχῇ ἐν ἴσῳ καὶ βραδέως προσῄεσαν.[1]

XENOPHON—*Anabasis*, I., viii.

(*b.*) ἔνθα δὴ παρακελευσάμενοι ἀλλήλοις προσβάλλουσι πρὸς τὸν λόφον ὀρθίοις τοῖς λόχοις, οὐ κύκλῳ ἀλλὰ καταλιπόντες ἄφοδον τοῖς πολεμίοις, εἰ βούλοιντο φεύγειν. καὶ τέως μὲν αὐτοὺς ἀναβαίνοντας ὅπῃ ἐδύναντο ἕκαστος[2] οἱ βάρβαροι ἐτόξευον καὶ ἔβαλλον, ἐγγὺς δ' οὐ προσίεντο,[1] ἀλλὰ φυγῇ λείπουσι τὸ χωρίον. καὶ τοῦτόν τε παρεληλύθεσαν οἱ Ἕλληνες καὶ ἕτερον ὁρῶσιν[1] ἔμπροσθεν λόφον κατεχόμενον ἐπὶ τοῦτον αὖθις ἐδόκει πορεύεσθαι.

Ib., IV., ii.

(*c.*) ἐνταῦθα εἶχον πάντα τὰ ἐπιτήδεια ὅσα ἐστὶν ἀγαθά, ἱερεῖα, σῖτον, οἴνους παλαιοὺς εὐώδεις, ἀσταφίδας, ὄσπρια παντοδαπά. τῶν δὲ ἀποσκεδαννυμένων τινὲς ἀπὸ τοῦ στρατοπέδου ἔλεγον ὅτι κατίδοιεν[2] στράτευμα καὶ νύκτωρ πολλὰ πυρὰ φαίνοιτο.[2] ἐδόκει δὴ τοῖς στρατηγοῖς οὐκ ἀσφαλὲς εἶναι διασκηνοῦν, ἀλλὰ συναγαγεῖν[2] τὸ στράτευμα πάλιν. ἐντεῦθεν συνῆλθον· καὶ γαρ ἐδόκει διαιθριάζειν. νυκτερευόντων δ' αὐτῶν ἐνταῦθα ἐπιπίπτει χιὼν ἄπλετος, ὥστε ἀπέκρυψε καὶ τὰ ὅπλα καὶ τοὺς ἀνθρώπους κατακειμένους· καὶ τὰ ὑποζύγια συνεπόδισεν ἡ χιών· καὶ πολὺς ὄκνος ἦν ἀνίστασθαι· κατακειμένων[2] γὰρ ἀλεεινὸν[2] ἦν ἡ χιὼν ἐπιπεπτωκυῖα ὅτῳ μὴ παραρρυείη[1]. ἐπεὶ δὲ Ξενοφῶν ἐτόλμησε γυμνὸς ἀναστὰς σχίζειν ξύλα, τάχα ἀναστάς τις καὶ ἄλλος ἐκείνου ἀφελόμενος ἔσχιζεν. ἐκ δὲ τούτου καὶ οἱ ἄλλοι ἀναστάντες πῦρ ἔκαιον καὶ ἐχρίοντο· πολὺ γὰρ ἐνταῦθα εὑρίσκετο χρῖσμα ᾧ ἐχρῶντο ἀντ' ἐλαίου σύειον καὶ σησάμινον καὶ ἀμυγδάλινον ἐκ τῶν πικρῶν καὶ τερεβίνθινον. ἐκ δὲ τῶν αὐτῶν τούτων καὶ μύρον εὑρίσκετο.

XENOPHON—*Anabasis*, IV., iv.

(*d.*) αἱ δ' οἰκίαι ἦσαν κατάγειοι, τὸ μὲν στόμα ὥσπερ φρέατος, κάτω δ' εὐρεῖαι· αἱ δὲ εἴσοδοι τοῖς μὲν ὑποζυγίοις ὀρυκταί, οἱ δὲ ἄνθρωποι κατέβαινον ἐπὶ κλίμακος. ἐν δὲ ταῖς οἰκίαις ἦσαν αἶγες, οἷες, βόες, ὄρνιθες, καὶ τὰ ἔκγονα τούτων· τὰ δὲ κτήνη πάντα χιλῷ ἔνδον ἐτρέφοντο. ἦσαν δὲ καὶ πυροὶ καὶ κριθαὶ καὶ ὄσπρια καὶ οἶνος κρίθινος ἐν κρατῆρσιν. ἐνῆσαν δὲ καὶ αὐταὶ αἱ κριθαὶ ἰσοχειλεῖς, καὶ κάλαμοι ἐνέκειντο, οἱ μὲν μείζους οἱ δὲ ἐλάττους, γόνατα οὐκ ἔχοντες· τούτους δ' ἔδει ὁπότε τις διψῴη λαβόντα εἰς τὸ στόμα μύζειν. καὶ πάνυ ἄκρατος ἦν, εἰ μή τις ὕδωρ ἐπιχέοι· καὶ πάνυ ἡδὺ συμμαθόντι τὸ πόμα ἦν.

Ib., IV., v.

2. Render into Greek the following sentences:—

(*a.*) I could not praise such men as you (*pl.*)

(*b.*) Some snow fell in the night-time.

(*c.*) On the third day the Athenians could perceive the watch-fires of the enemy.

(*d.*) It was said that the fountains of the Euphrates were not far from those of the Tigris.

(*e.*) By this time the whole Hellenic force was gathered together, and the troops took up their quarters here in a number of handsome houses.

(*f.*) When it was day-break, he went to another officer, and told him that he hoped now that all would go well, and described to him the dream.

(*g.*) I also am informed that you Athenians are clever at stealing public property.

(*h.*) The Lacedæmonians, all that are of noble lineage, practise stealing from early childhood, and it is no disgrace but rather a credit to them to steal whatever things the law does not expressly forbid (*their stealing*).

LATIN.—*Examiner, Professor Maguire,* LL.D.

1. Give the perfect, the infinitive, and the supine of:—*Pango, impingo, scabo, verto, frendo, mando* (*3rd conj.*) *extendo, distendo, applaudo, complodo, oboleo, aboleo, adoleo, exoleo, ferveo, effervesco, applico, explico, supplico.*

2. State in your own words the distinction between the indicative and subjunctive moods.

3. When does *memini* take a present and when a past tense of the infinitive?

4. Parse *molītus, molĭtus, mollitus.*

5. Give the *genders* of the following substantives:—Arbor, compes, incus, dos, supellex, unguis, porticus, fons, tribus, sal, ensis.

6. Give the *genitives* of—olus, caro, cardo, supellex, senex, lis, gener, carbo, anceps.

7. Give the *comparatives* and *superlatives* of—celer, celeber, nequam, frugi, juvenis, graviter, beneficus, egenus, liber.

8. Mark the quantity of the doubtful vowels in—stabilis, subtilis, pristinus, idoneus, como, fieri, velim, potitur, cibus, robora, sopor, nares, caligo.

Translate into Latin prose:—

It was in Sicily that the Romans and Carthaginians first met one another: it was very natural that they should do so, as the island of Sicily lies between Italy and Carthage. The Sicels, who gave their name to Sicily, were an Italian people, very like the Latins at first. But the Greeks planted colonies in Sicily as early as 735, and the Sicels learned to be like the Greeks. These Greeks were great traders as well as the Carthaginians, so the two were always fighting, especially as the Carthaginians settled on the west coast of Sicily and tried to drive out the Greeks. Thus, while Rome was carrying on her early wars in Italy, there was constant fighting in Sicily between the Carthaginians and the Greeks, under the tyrants or kings of Syracuse.

Translate carefully into English:—

LIVY, I.

Suam quisque laudare miris modis. Inde certamine accenso Collatinus negat verbis opus esse, paucis id quidem horis posse sciri, quantum ceteris praestet Lucretia sua. "Quin, si vigor iuventae inest, conscendimus equos invisimusque praesentes nostrarum ingenia? id cuique spectatissimum sit, quod necopinato viri adventu occurrerit oculis." Incaluerant vino. "Age sane" omnes. Citatis equis avolant Romam. Quo cum primis se intendentibus tenebris pervenissent, pergunt inde Collatiam, ubi Lucretiam haudquaquam ut regias nurus, quas in convivio luxuque cum aequalibus viderant tempus terentes, sed nocte sera deditam lanae inter lucubrantes ancillas in medio aedium sedentem inveniunt.

Appendix E.
Scholarship Examinations.

Muliebris certaminis laus penes Lucretiam fuit. Adveniens vir Tarquiniique excepti benigne. Victor maritus comiter invitat regios iuvenes.

SALLUST—*Bell. Jug.*

Eodem tempore Iugurtha, amissis amicis, quorum plerosque ipse necaverat, ceteri formidine pars ad Romanos, alii ad regem Bocchum profugerant, quum neque bellum geri sine administris posset, et novorum fidem in tanta perfidia veterum experiri periculosum duceret, varius incertusque agitabatur. Neque illi res neque consilium aut quisquam hominum satis placebat, itinera praefectosque in dies mutare, modo advorsum hostes, interdum in solitudines pergere; saepe in fuga, ac post paullo spem in armis habere, dubitare, virtuti an fidei popularium minus crederet; ita, quocumque intenderat, res advorsae erant. Sed inter eas moras repente sese Metellus cum exercitu ostendit. Numidae ab Iugurtha pro tempore parati instructique, dein praelium incipitur.

ENGLISH COMPOSITION, AND OUTLINES OF GRECIAN AND ROMAN HISTORY, AND OF ANCIENT AND MODERN GEOGRAPHY.

Examiner, Professor Moffett, LL.D.

Describe the pleasures of a morning walk in summer.

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1. Mention the causes of the Peloponnesian War, and the principal occurrences in it.

2. Give the dates of the Battles of Marathon, Mantinea, Chaeronea, Salamis, Arbela, Leuctra, and Pydna.

3. Enumerate, with dates, the Battles of the Second Punic War.

4. Describe the position of these places, and mention anything noteworthy connected with them:—*Numantia, Corioli, Pergamus, Utica, Saguntum, Rhegium, Zama, Mutina.*

5. Give the ancient and the modern names of the chief Rivers of Gaul.

6. Give the geographical site and modern names of *Brundisium, Lugdunum, Mediolanum, Corduba, Nova Carthago, Parthenope, Tibur.*

7. What is the Gulf-Stream? What are the Trade-Winds? What are the Monsoons?

8. Describe geographically any one Irish County.

9. Enumerate the *chief* Colonial possessions of the British Empire, with special remarks on any one of them you may select.

10. Give some geographical information about each of these places:—*St. Helena, Elba, the Pruth, Santiago, Leyden, the Punjaub, Avignon, Rhodes, Flushing, Surinam.*

Note circumstances of historical interest connected with any of them.

SCIENCE SCHOLARSHIPS.

ARITHMETIC.—*Examiner, Professor Allman,* LL.D.

1. Define a vulgar fraction, and show that the value of a fraction is not altered if the numerator and denominator be multiplied by the same number. Simplify $\frac{747}{960}$. What alteration in the value of a fraction is produced by the addition of the same number to its numerator and denominator? Compare $\frac{5}{6}$, $\frac{6}{7}$, and $\frac{11}{13}$.

2. A man had a sum of money consisting of sovereigns and half-sovereigns; he gave to one person half the money he had together with

a half-sovereign, he then gave to a second person half of the sum he had remaining and a half-sovereign, similarly he gave to a third half of the money he had remaining and a half-sovereign, and so on to a fourth, fifth, sixth, seventh, and eighth person, he then had no money left: how much money had he originally?

3. If 20 men can perform a piece of work in 12 days, how many men will perform a piece of work half as large again in a fifth part of the time, if they work the same number of hours a day; supposing that 2 of the second set can do as much work in an hour as 3 of the first set?

4. Extract the square roots of 7614 3076, of ·07929856, and of $\frac{7}{11}$, in its simplest form.

5. Find the value of $\frac{\frac{5}{7} \text{ of } \frac{3}{10} + \frac{1}{4} \text{ of } \frac{8}{21}}{\frac{2}{3} \text{ of } \frac{9}{14} - \frac{5}{6} \text{ of } \frac{2}{15}}$; and perform the following operation in decimals—

$$(7\tfrac{1}{2} \text{ of } \tfrac{1}{5} + \tfrac{17}{25} - \cdot 02) \div \cdot 005.$$

Professor Curtis, LL.D.

6. Find the difference between ·31595 of a guinea, and 5·12195 of a shilling, and reduce the result to the decimal of a dollar, whose value is 4*s.* 3*d.*

7. A person buys some tea at 3*s.* per lb., and also some at 2*s.* per lb.; in what proportion must he mix them, so that by selling the mixture at 2*s.* 7½*d.* per lb. he may gain at the rate of 20 per cent?

8. A person owes £4,000, bearing interest at 5 per cent. per annum, he pays at the end of each year for interest, and in part payment of the principal, £500; find the amount of the debt after the third payment.

9. Calculate how much the income arising from £2,500, invested in the 5 per cents. at 114, exceeds the income arising from investing the same sum in the 3 per cents. at $92\frac{5}{8}$.

10. The moon revolves in her orbit round the earth in 27 days, 7 hours, 43 minutes, 11 seconds; through how many degrees of her orbit does she move in 7 days, the entire orbit consisting of 360 degrees?

ALGEBRA, GEOMETRY, AND TRIGONOMETRY.—*Examiner, Professor Allman*, LL.D.

1. Simplify the following expression:—

$$\frac{1}{a(a-b)(a-c)} + \frac{1}{b(b-c)(b-a)} + \frac{1}{c(c-a)(c-b)}.$$

Prove the following identity:—

$$(x^2-yz)(y^2-zx)(z^2-xy)+(xy+yz+zx)^3 = xyz(x+y+z)^3.$$

2. Solve the following equations:—

$$\sqrt{x+8} - \sqrt{x+3} = \sqrt{x};$$

$$\frac{3x-11}{2x+6} - \frac{x-4}{9} = \frac{1}{6}.$$

3. Prove that in a right-angled triangle the rectilineal figure described upon the hypotenuse is equal to the sum of the similar and similarly described figures on the sides containing the right angle.

4. Prove that the square on the side of a regular pentagon inscribed in a circle is equal to the sum of the squares on the sides of a regular hexagon and regular decagon inscribed in the same circle.

5. Prove that in a triangle:—

$$\frac{\sin A}{a} = \frac{\sin B}{b} = \frac{\sin C}{c} = \frac{1}{2R},$$

where R is the radius of the circumscribed circle.

Appendix E.

Scholarship Examinations.

6. Solve a triangle, being given :—
   (*a*) two sides and the included angle;
   (*b*) the three perpendiculars from the angles on the opposite sides.

Professor Curtis, LL.D.

7. If $\frac{a}{b}=\frac{a'}{b'}$, prove that $\frac{a+b}{a-b}=\frac{a'+b'}{a'-b'}$; in general, if $\frac{a}{b}=\frac{a'}{b'}=\frac{a''}{b''}=\ldots$, prove that $\frac{a}{b}=\frac{pa+p'a'+p''a''+\ldots}{pb+p'b'+p''b''+\ldots}$.

8. Solve the equations :—

(1.) $\frac{x^2}{y}+\frac{y^2}{x}=18$, $x+y=12$;

(2.) $4(x+y)=3xy$, $x+y+x^2+y^2=26$.

9. Prove that the rectangle contained by the diagonals of a quadrilateral figure inscribed in a circle is equal to the sum of the rectangles contained by the opposite sides.

10. Inscribe in a given circle a rectangle, whose area shall be given, or maximum.

11. Prove the formulae :—

$$\tan 3A=\frac{3\tan A-\tan^3 A}{1-3\tan^2 A};\quad \cos 5A=16\cos^5 A-20\cos^3 A+5\cos A.$$

12. Define a logarithm, and show how to determine the characteristic of the logarithm of any number in the common system. State and prove the properties of logarithms on which their utility in simplifying arithmetical calculations depends. Given log 2 = ·30103, and log 3 = ·4771213; find log 5, log 32, log 81, and log 72.

Licentiate in Arts Exhibition.—First Year.

Algebra and Geometry.*—*Examiner, Professor Allman*, LL.D.

1. To a given straight line apply a parallelogram which shall be equal to a given triangle, and have one of its angles equal to a given rectilineal angle.

2. Trisect a given straight line.
Trisect a right angle.

3. Prove that the difference between the squares on two lines is equal to the rectangle under their sum and difference.

4. Prove that the square on the hypotenuse of an isosceles right-angled triangle is equal to four times the area of the triangle.

5. Construct a right-angled triangle, being given the perimeter and one angle.

6. Divide $x^3+y^3+3xy-1$ by $x+y-1$.

7. Prove the identity—

$$(a^2+b^2)\,(c^2+d^2)=(ac+bd)^2+(bc-ad)^2.$$

8. If $\frac{a}{b}=\frac{a'}{b'}$, prove that $\frac{a+b}{a-b}=\frac{a'+b'}{a'-b'}$; in general if $\frac{a}{b}=\frac{a'}{b'}=\frac{a''}{b''}=$ &c., prove that $\frac{a}{b}=\frac{pa+p''a'+p'a''+\&c.}{pb+p'b'+p''b''+\&c.}$.

* The Examination Paper in Arithmetic was the same as that for the Science Scholarships of the First Year.

9. Simplify—

$$\frac{a}{a+b}+\frac{b}{a-b}\,;\quad \frac{a+b}{(b-c)\,(c-a)}+\frac{b+c}{(c-a)\,(a-b)}+\frac{c+a}{(a-b)\,(b-c)}.$$

10. Solve the equations :—

(*a.*) $$\frac{x-1}{x-2}-\frac{x-2}{x-3}=\frac{x-5}{x-6}-\frac{x-6}{x-7}.$$

(*b.*) $$\frac{x}{2}+\frac{y}{3}=1\,;\quad \frac{x}{3}+\frac{y}{4}=1.$$

Prizes at Entrance.

Geometry.—*Examiner, Professor Allman,* ll.d.

1. Prove that the circle described through the feet of the perpendiculars of a triangle bisects the sides of the triangle, and the segments of the perpendiculars towards the angles.

Prove, also, that its radius is half the radius of the circumscribed circle, and that its centre is the middle point of the straight line joining the centre of the circumscribed circle and the intersection of the perpendiculars.

2. Divide a given arc of a circle into two parts, whose chords shall be in a given ratio.

3. Given the base of a triangle, the perpendicular on it from the vertex, and the radius of the inscribed circle ; construct the triangle.

4. Given the vertical angle, the perpendicular on the base, and the sum of the two sides ; construct the triangle.

5. In the circle C A B, the radius C O is parallel to the chord A B ; the chord C A is drawn and produced to P, so that O P is perpendicular to A B : prove that the angle A P O is half the angle A B O.

Professor Curtis, ll.d.

6. Find a point such that, if from it perpendiculars be let fall on three fixed lines, they may be to one another in given ratios.

7. Being given the rectangle under two lines, and the difference of the squares on them ; determine the lines.

8. A quadrilateral is bounded by the diameter of a circle, the tangents at its extremities, and a third tangent ; show that its area is equal to half the rectangle contained by the diameter and the side opposite to it. Determine the least of all the rectangles, which can be thus constructed.

9. Assuming Euclid's definition of *Duplicate Ratio*, prove that the duplicate ratio of any two lines is the same as the ratio of the squares described on them.

10. Two similar figures, A and B, being given, construct a third figure C, similar to A and B, such that A shall be to C in the duplicate ratio of A to B.

Appendix E.

Scholarship Examinations.

Second Year's Scholarships.

Literary Scholarships.

Greek.—*Examiner, Professor D'Arcy Thompson,* M.A.

Note.—After the translation of each separate passage, you are required to parse fully and accurately any word or words therein to which the figure (1) is affixed.

1. Translate the following passages :—

(*a.*) ὡς δ' Εὖρός τε Νότος τ' ἐριδαίνετον ἀλλήλοιϊν
οὔρεος ἐν βήσσῃς βαθέην πελεμιζέμεν ὕλην,
φηγόν τε μελίην τε τανύφλοιόν τε κράνειαν,
αἵτε πρὸς ἀλλήλας ἔβαλον τανυήκεας ὄζους
ἠχῇ θεσπεσίῃ, πάταγος δέ τε ἀγνυμενάων,
ὣς Τρῶες καὶ Ἀχαιοὶ ἐπ' ἀλλήλοισι θορόντες
δῄουν, οὐδ' ἕτεροι μνώοντ' ὀλοοῖο φόβοιο.
πολλὰ δὲ Κεβριόνην ἀμφ' ὀξέα δοῦρ' ἐπεπήγει[1]
ἰοί τε πτερόεντες ἀπὸ νευρῆφι θορόντες,
πολλὰ δὲ χερμάδια μεγάλ' ἀσπίδας ἐστυφέλιξεν
μαρναμένων ἀμφ' αὐτόν· ὁ δ' ἐν στροφάλιγγι κονίης
κεῖτο μέγας μεγαλωστὶ, λελασμένος ἱπποσυνάων.

Iliad, xvi., 765–776.

(*b.*) ἐν δ' ἐτίθει νειὸν μαλακὴν, πίειραν ἄρουραν,
εὐρεῖαν, τρίπολον· πολλοὶ δ' ἀροτῆρες ἐν αὐτῇ
ζεύγεα δινεύοντες ἐλάστρεον ἔνθα καὶ ἔνθα.
οἱ δ' ὁπότε στρέψαντες ἵκοιατο τέλσον ἀρούρης,
τοῖσι δ' ἔπειτ' ἐν χερσὶ δέπας μελιηδέος οἴνου
δόσκεν ἀνὴρ ἐπιών· τοὶ δὲ στρέψασκον ἀν' ὄγμους,
ἱέμενοι[1] νειοῖο βαθείης τέλσον ἱκέσθαι.
ἡ δὲ μελαίνετ' ὄπισθεν, ἀρηρομένῃ δὲ ἐῴκει,
χρυσείη περ ἐοῦσα· τὸ δὴ περὶ θαῦμα τέτυκτο.

Ib., xviii., 541–549.

(*c.*) ὡς δ' ἐν ὀνείρῳ οὐ δύναται φεύγοντα διώκειν·
οὔτ' ἄρ' ὁ τὸν δύναται ὑποφεύγειν οὔθ' ὁ διώκειν·
ὣς ὁ τὸν οὐ δύνατο μάρψαι ποσὶν, οὐδ' ὃς ἀλύξαι.
πῶς δέ κεν Ἕκτωρ Κῆρας ὑπεξέφυγεν θανάτοιο,
εἰ μή οἱ πύματόν τε καὶ ὕστατον ἦντετ' Ἀπόλλων
ἐγγύθεν, ὅς οἱ ἐπῶρσε μένος λαιψηρά τε γοῦνα;
λαοῖσιν δ' ἀνένευε καρήατι δῖος Ἀχιλλεύς,
οὐδ' ἔα ἰέμεναι ἐπὶ Ἕκτορι πικρὰ βέλεμνα,
μή τις κῦδος ἄροιτο[1] βαλὼν, ὁ δὲ δεύτερος ἔλθοι.

Ib., xxii., 199–207.

2. Translate the following passages :—

(*a.*) ἥκω δολιχῆς τέρμα κελεύθου
διαμειψάμενος πρὸς σὲ, Προμηθεῦ,
τὸν πτερυγωκῆ τόνδ' οἰωνὸν

γνώμῃ στομίων ἄτερ εὐθύνων.
ταῖς σαῖς δὲ τύχαις, ἴσθι, συναλγῶ.
τό τε γάρ με, δοκῶ, ξυγγενὲς οὕτως
ἐσαναγκάζει,
χωρίς τε γένους οὐκ ἔστιν ὅτῳ
μείζονα μοῖραν νείμαιμ' ἢ σοί.
γνώσει δὲ τάδ' ὡς ἔτυμ', οὐδὲ μάτην
χαριτογλωσσεῖν ἔνι μοι· φέρε γὰρ
σήμαιν' ὅ τι χρή σοι ξυμπράσσειν·
οὐ γάρ ποτ' ἐρεῖς ὡς 'Ωκεανοῦ
φίλος ἐστὶ βεβαιότερός σοι.

ÆSCHYLUS—*Prometheus Vinctus*, 284–297.

(*b.*) ἢ μὴν ἔτι Ζεὺς, καίπερ αὐθάδη[1] φρονῶν,
ἔσται ταπεινὸς, τοῖον ἐξαρτύεται
γάμον γαμεῖν, ὃς αὐτὸν ἐκ τυραννίδος
θρόνων τ' ἄϊστον ἐκβαλεῖ· πατρὸς δ' ἀρὰ
Κρόνου τότ' ἤδη παντελῶς κρανθήσεται,
ἣν ἐκπίτνων ἠρᾶτο δηναιῶν θρόνων.
τοιῶνδε μόχθων ἐκτροπὴν οὐδεὶς θεῶν
δύναιτ' ἂν αὐτῷ πλὴν ἐμοῦ δεῖξαι σαφῶς.
ἐγὼ τάδ' οἶδα χὦ τρόπῳ. πρὸς ταῦτά νυν
θαρσῶν καθήσθω τοῖς πεδαρσίοις κτύποις
πιστὸς, τινάσσων τ' ἐν χεροῖν πύρπνουν βέλος.
οὐδὲν γὰρ αὐτῷ ταῦτ' ἐπαρκέσει τὸ μὴ οὐ
πεσεῖν ἀτίμως πτώματ' οὐκ ἀνασχετά·
τοῖον παλαιστὴν νῦν παρασκευάζεται
ἐπ' αὐτὸς αὑτῷ, δυσμαχώτατον τέρας·
ὃς δὴ κεραυνοῦ κρεῖσσον' εὑρήσει φλόγα,
βροντάς θ' ὑπερβάλλοντα καρτερὸν κτύπον·
θαλασσίαν τε γῆς τινάκτειραν νόσον
τρίαιναν, αἰχμὴν τὴν Ποσειδῶνος, σκεδᾷ.
πταίσας δὲ τῷδε πρὸς κακῷ μαθήσεται
ὅσον τό τ' ἄρχειν καὶ τὸ δουλεύειν δίχα.

Ib., 907–927.

3. Translate the following passages :—

(*a.*) γυναῖκες, ἀνὴρ εἰς βόλον καθίσταται·
ἥξει δὲ Βάκχας, οὗ θανὼν δώσει δίκην.
Διόνυσε, νῦν σὸν ἔργον, οὐ γὰρ εἶ πρόσω,
τισώμεθ' αὐτόν. πρῶτα δ' ἔκστησον[1] φρενῶν,
νεὶς[1] ἐλαφρὰν λύσσαν· ὡς φρονῶν μὲν εὖ
οὐ μὴ θελήσει θῆλυν ἐνδῦναι στολήν,
ἔξω δ' ἐλαύνων τοῦ φρονεῖν ἐνδύσεται.
χρῄζω δέ νιν γέλωτα Θηβαίοις ὀφλεῖν
γυναικόμορφον ἀγόμενον δι' ἄστεως
ἐκ τῶν ἀπειλῶν τῶν πρίν, αἷσι δεινὸς ἦν.
ἀλλ' εἶμι κόσμον ὕνπερ εἰς Ἅιδου λαβὼν

Appendix E.

Scholarship Examinations.

ἄπεισι μητρὸς ἐκ χεροῖν κατασφαγείς,
Πενθεῖ προσάψων· γνώσεται δὲ τὸν Διὸς
Διόνυσον, ὃς πέφυκεν ἐν τέλει θεὸς
δεινότατος, ἀνθρώποισι δ' ἠπιώτατος.

EURIPIDES—*Bacchæ*, 847–861.

(*b.*) κεῖται δὲ χωρὶς σῶμα, τὸ μὲν ὑπὸ στύφλοις
πέτραις, τὸ δ' ὕλης ἐν βαθυξύλῳ φόβῃ,
οὐ ῥᾴδιον ζήτημα· κρᾶτα δ' ἄθλιον,
ὅπερ λαβοῦσα τυγχάνει μήτηρ χεροῖν,
πήξασ' ἐπ' ἄκρον θύρσον ὡς ὀρεστέρου
φέρει λέοντος διὰ Κιθαιρῶνος μέσου,
λιποῦσ' ἀδελφὰς ἐν χοροῖσι Μαινάδων.
χωρεῖ δὲ θήρᾳ δυσπότμῳ γαυρουμένη
τειχέων ἔσω τῶνδ', ἀνακαλοῦσα Βάκχιον
τὸν ξυγκύναγον, τὸν ξυνεργάτην ἄγρας
τὸν καλλ νικον, ᾗ δάκρυα νικηφορεῖ.

Ib., 1137–1147.

4. Translate the following:—

(*a.*) τί δῆτα μέλλεις; ὡς ἐμοὶ τῶν σῶν λόγων
ἀρεστὸν οὐδέν, μηδ' ἀρεσθείη ποτέ,
οὕτω δὲ καὶ σοὶ τἄμ' ἀφανδάνοντ' ἔφυ.
καίτοι πόθεν κλέος γ' ἂν εὐκλεέστερον
κατέσχον ἢ τὸν αὐτάδελφον ἐν τάφῳ
τιθεῖσα; τούτοις τοῦτο πᾶσιν ἀνδάνειν
λέγοιτ' ἂν, εἰ μὴ γλῶσσαν ἐγκλῄοι φόβος.
ἀλλ' ἡ τυραννὶς πολλά τ' ἄλλ' εὐδαιμονεῖ
κἄξεστιν αὐτῇ δρᾶν λέγειν θ' ἃ βούλεται.

SOPHOCLES—*Antigone*, 499–507.

(*b.*) ὦ πρέσβυ, πάντες ὥστε τοξόται σκοπoῦ
τοξεύετ' ἀνδρὸς τοῦδε, κοὐδὲ μαντικῆς
ἄπρακτος ὑμῖν εἰμι, τῶν ὑπαὶ γένους
ἐξημπόλημαι κἀκπεφόρτισμαι πάλαι.
κερδαίνετ', ἐμπολᾶτε τὸν πρὸς Σάρδεων
ἤλεκτρον, εἰ βούλεσθε, καὶ τὸν Ἰνδικὸν
χρυσόν· τάφῳ δ' ἐκεῖνον οὐχὶ κρύψετε,
οὐδ' εἰ θέλουσ' οἱ Ζηνὸς αἰετοὶ βορὰν
φέρειν νιν ἁρπάζοντες ἐς Διὸς θρόνους,
οὐδ' ὡς μίασμα τοῦτο μὴ τρέσας ἐγὼ
θάπτειν παρήσω· κεῖνον· εὖ γὰρ οἶδ' ὅτι
θεοὺς μιαίνειν οὔτις ἀνθρώπων σθένει.
πίπτουσι δ', ὦ γεραιὲ Τειρεσία, βροτῶν
χοὶ πολλὰ δεινοὶ πτώματ' αἴσχρ', ὅταν λόγους
αἰσχροὺς καλῶς λέγωσι τοῦ κέρδους χάριν.

Ib., 1033–1047.

Scholarship Examinations.

1. Translate the following passages, and parse fully all words to which the figure 1 is affixed :—

(*a.*) προσκέψασθέ τε ὅτι νῦν μὲν παράδειγμα τοῖς πολλοῖς τῶν Ἑλλήνων ἀνδραγαθίας νομίζεσθε· εἰ δὲ περὶ ἡμῶν γνώσεσθε μὴ τὰ εἰκότα (οὐ γὰρ ἀφανῆ κρινεῖτε τὴν δίκην τήνδε, ἐπαινούμενοι δὲ περὶ οὐδ' ἡμῶν μεμπτῶν) ὁρᾶτε ὅπως μὴ οὐκ ἀποδέξωνται ἀνδρῶν ἀγαθῶν πέρι αὐτοὺς ἀμείνους ὄντας ἀπρεπές τι ἐπιγνῶναι, οὐδὲ πρὸς ἱεροῖς τοῖς κοινοῖς σκῦλα ἀπὸ ἡμῶν τῶν εὐεργετῶν τῆς Ἑλλάδος ἀνατεθῆναι. δεινὸν δὲ δόξει εἶναι Πλάταιαν Λακεδαιμονίους πορθῆσαι, καὶ τοὺς μὲν πατέρας ἀναγράψαι ἐς τὸν τρίποδα τὸν ἐν Δελφοῖς δι' ἀρετὴν τὴν πόλιν, ὑμᾶς δὲ καὶ ἐκ παντὸς τοῦ Ἑλληνικοῦ πανοικησίᾳ διὰ Θηβαίους ἐξαλεῖψαι. ἐς τοῦτο γὰρ δὴ ξυμφορᾶς προκεχωρήκαμεν, οἵτινες Μήδων τε κρατησάντων ἀπωλλύμεθα καὶ νῦν ἐν ὑμῖν τοῖς πρὶν φιλτάτοις Θηβαίων ἠσσώμεθα καὶ δύο ἀγῶνας τοὺς μεγίστους ὑπέστημεν, τότε μέν, τὴν πόλιν εἰ μὴ παρέδομεν, λιμῷ διαφθαρῆναι, νῦν δὲ θανάτου κρίνεσθαι. καὶ περιεώσμεθα ἐκ πάντων Πλαταιῆς οἱ παρὰ δύναμιν πρόθυμοι ἐς τοὺς Ἕλληνας ἐρῆμοι καὶ ἀτιμώρητοι· καὶ οὔτε τῶν τότε ξυμμάχων ὠφελεῖ οὐδείς, ὑμεῖς τε, ὦ Λακεδαιμόνιοι, ἡ μόνη ἐλπίς, δέδιμεν μὴ οὐ βέβαιοι ἦτε.

THUCYDIDES, iii., 57.

(*b.*) καὶ ἐπέπεσε πολλὰ καὶ χαλεπὰ κατὰ στάσιν ταῖς πόλεσι, γιγνόμενα μὲν καὶ ἀεὶ ἐσόμενα, ἕως ἂν ἡ αὐτὴ φύσις ἀνθρώπων ᾖ, μᾶλλον δὲ καὶ ἡσυχαίτερα καὶ τοῖς εἴδεσι διηλλαγμένα, ὡς ἂν ἕκασται αἱ μεταβολαὶ τῶν ξυντυχιῶν ἐφιστῶνται. ἐν μὲν γὰρ εἰρήνῃ καὶ ἀγαθοῖς πράγμασιν αἵ τε πόλεις καὶ οἱ ἰδιῶται ἀμείνους τὰς γνώμας ἔχουσι διὰ τὸ μὴ ἐς ἀκουσίους ἀνάγκας πίπτειν· ὁ δὲ πόλεμος ὑφελὼν τὴν εὐπορίαν τοῦ καθ' ἡμέραν βίαιος διδάσκαλος καὶ πρὸς τὰ παρόντα τὰς ὀργὰς τῶν πολλῶν ὁμοιοῖ. ἐστασίαζέ τε οὖν τὰ τῶν πόλεων καὶ τὰ ἐφυστερίζοντά που πύστει τῶν προγενομένων πολὺ ἐπέφερε τὴν ὑπερβολὴν τοῦ καινοῦσθαι τὰς διανοίας τῶν τ' ἐπιχειρήσεων περιτεχνήσει καὶ τῶν τιμωριῶν ἀτοπίᾳ. καὶ τὴν εἰωθυῖαν ἀξίωσιν τῶν ὀνομάτων ἐς τὰ ἔργα ἀντήλλαξαν τῇ δικαιώσει. τόλμα μὲν γὰρ ἀλόγιστος ἀνδρία φιλέταιρος ἐνομίσθη, μέλλησις δὲ προμηθὴς δειλία εὐπρεπής, τὸ δὲ σῶφρον τοῦ ἀνάνδρου πρόσχημα, καὶ τὸ πρὸς ἅπαν ξυνετὸν ἐπὶ πᾶν ἀργόν· τὸ δ' ἐμπλήκτως ὀξὺ ἀνδρὸς μοίρᾳ προσετέθη, ἀσφαλίᾳ δὲ τὸ ἐπιβουλεύσασθαι ἀποτροπῆς πρόφασις εὔλογος. καὶ ὁ μὲν χαλεπαίνων πιστὸς ἀεί, ὁ δ' ἀντιλέγων αὐτῷ ὕποπτος. ἐπιβουλεύσας δέ τις τυχὼν ξυνετὸς καὶ ὑπονοήσας ἔτι δεινότερος· προβουλεύσας δὲ ὅπως μηδὲν αὐτῶν δεήσει, τῆς τε ἑταιρίας διαλυτὴς καὶ τοὺς ἐναντίους ἐκπεπληγμένος. ἁπλῶς δὲ ὁ φθάσας τὸν μέλλοντα κακόν τι δρᾶν ἐπῃνεῖτο, καὶ ὁ ἐπικελεύσας τὸν μὴ διανοούμενον.

THUCYDIDES, iii., 82.

2. Render into Greek prose the following :—

Such were the addresses delivered to the Peloponnesians by their commanders. Phormio, the Athenian, apprehensive-of[1] the fears entertained-by[2] his men, and aware that they were forming-into-clusters[3] and expressing alarm at the-disproportionate-number[4] of the enemy's vessels, determined to muster[5] the men and deliver them a few words of encouragement suited to the occasion. On all previous occasions he had been accustomed to address them, and to-instil-this-idea-into-their-heads[6] that they, as Athenians, were bound to withstand[7] any-amount-of-odds-

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that[8] might attack them; and his troops for-a-considerable-time-past[9] had-held-the-conviction[10] that an Athenian should never avoid a fleet, however disproportionately numerous and powerful, of Peloponnesians or continentalists.

3. Give brief and concise biographical notices of:—Solon, Themistocles, Thucydides, Gylippus, Epaminondas, Phocion.

4. (*a.*) Give accurately the geographical positions of:—Tarentum, Decelea, Tarsus, Mytilene, Colophon, Claros, the Eurymedon, Epidamnus, Oropus, Tanagra; and (*b*) write down *in order* the names of the sea-coast cities of Sicily, commencing with the chief of them, and starting northwards.

[1] '*Fearing.*' [2] Genitive case. [3] ξυνίστασθαι. [4] τὸ πλῆθος. [5] ξυγκαλεῖν. [6] παρασκευάζειν τὰς γνώμας. [7] ὑπομένειν. [8] "As-many-as might attack them, even being ever-so-much-more-numerous (πολλαπλάσιοι) than themselves (σφῶν αὐτῶν)." [9] ἐκ πολλοῦ. [10] λαμβάνειν τὴν ἀξίωσιν.

LATIN.—*Examiner, Professor Maguire,* LL.D.

Translate:—

1. CATULLUS, lxiv., 270–292.

Hic, qualis flatu placidum mare matutino
Horrificans Zephyrus proclivas incitat undas
Aurora exoriente vagi sub limina Solis,
Quae tarde primum clementi flamine pulsae
Procedunt leviterque sonant plangore cachinni,
Post vento crescente magis magis increbrescunt
Purpureaque procul nantes a luce refulgent,
Sic tum ibi vestibuli linquentes regia tecta
Ad se quisque vago passim pede discedebant.
Quorum post abitum princeps e vertice Pelei
Advenit Chiron portans silvestria dona:
Nam quotcunque ferunt campi, quot Thessala magnis
Montibus ora creat, quot propter fluminis undas
Aura parit flores tepidi fecunda Favoni,
Hos in distinctis plexos tulit ipse corollis,
Quo permulsa domus iucundo risit odore.
Confestim Peneios adest, viridantia Tempe,
Tempe, quae silvae cingunt super impendentes,
Minosim linquens doris celebranda choreis,
Non vacuos: namque ille tulit radicitus altas
Fagos ac recto proceras stipite laurus,
Non sine nutanti platano lentaque sorore
Flammati Phaethontis et aeria cupressu.

(*a.*) Point out any peculiarities in the metre or prosody of this poem.

(*b.*) What is the relation between the story on the tapestry and the main subject of the poem?

2. TERENCE—*Phormio,* 977–994.

De. Tantane adfectum quemquam esse hominem audacia!
Non hoc publicitus scelus hinc asportarier
In solas terras! *Ch.* In id redactus sum loci,
Vt quid agam cum illo nesciam prorsum. *De.* Ego scio:
In ius eamus. *Ph.* In ius? huc, siquid lubet.
De. Adsequere, retine, dum ego huc seruos euoco.
Ch. Enim nequeo solus: adcurre. *Ph.* Vna iniuriast

Tecum. *Ch.* Lege agito ergo. *Ph.* Alterast tecum, Chremes.
De. Rape hunc. *Ph.* Sic agitis? enim uero uocest opus:
Nausistrata, exi. *Ch.* Os opprime. *De.* Inpurum uide
Quantum ualet. *Ph.* Nausistrata, inquam. *Ch.* Non taces?
Ph. Taceam? *De.* Nisi sequitur, pugnos in uentrem ingere.
Ph. Vel oculum exlide: est ubi uos ulciscar probe.
Na. Qui nominat me? *Ch.* Hem. *Na.* Quid istuc turbaest, obsecro.
Mi uir? *Ph.* Ehem, quid nunc obstipuisti? *Na.* Quis hic homost?
Non mihi respondes? *Ph.* Hicine ut tibi respondeat,
Qui hercle ubi sit nescit? *Ch.* Caue isti quicquam creduas.
Ph. Abi, tange: si non totus friget me enica.

Translate into Latin prose:—

Between the eastern part of Philip's dominions and the sea, lay the district called Chalkidike, in which were a number of Greek cities. One of these, named Olynthus, had become a very powerful State, and had placed itself at the head of a League of the neighbouring cities, called the Olynthian Confederacy. Further east was the important city of Amphipolis, which Athens had lost in the Peloponnesian war, and had never been able to recover. Other places on this coast still belonged to Athens, so that Athens was concerned from the first in the action of Philip. Philip made friends with the Athenians on the pretence that he would gain Amphipolis for them, but when he had conquered it, he kept it himself; and then, in order to prevent the Athenians and Olynthians joining together against him, he gave up another city to Olynthus, so that the Olynthians became his allies (B.C. 357). He now crossed the river Strymon and conquered the western part of Thrace, in which there were very rich gold mines, and founded there the city of Philippi.

Translate unambiguously:

1. CICERO—*Tusculans.*

Sed plena errorum sunt omnia. Trahit Hectorem ad currum religatum Achilles: lacerari eum et sentire, credo, putat. Ergo hic ulciscitur, ut quidem sibi videtur. At illa sicut acerbissimam rem maeret:

> Vidi videre quod me passa aegerrime,
> Hectorem curru quadriiugo raptarier.

Quem Hectorem aut quam diu ille erit Hector? Melius Accius et aliquando sapiens Achilles:

> Immo enimvero corpus Priamo reddidi, Hectorem abstuli.

Non igitur Hectorem traxisti, sed corpus, quod fuerat Hectoris. Ecce alius exoritur e terra, qui matrem dormire non sinat:

> Mater, te appello, quae curam somno suspensam levas,
> Neque te mei miseret, surge et sepeli natum . . .

— Haec quum pressis et flebilibus modis, qui totis theatris maestitiam

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inferant, concinuntur, difficile est non eos, qui inhumati sint, miseros iudicare—

prius quam ferae
Volucresque . . .

— metuit ne laceratis membris minus bene utatur, ne combustis non extimescit—

Neu relliquias sic meas sieris denudatis ossibus
Per terram sanie delibutas foede divexarier.

— Non intelligo quid metuat, quum tam bonos septenarios fundat ad tibiam.—Tenendum est igitur nihil curandum esse post mortem, quum multi inimicos etiam mortuos poeniuntur. Exsecratur luculentis sane versibus apud Ennium Thyestes, primum ut naufragio pereat Atreus: durum hoc sane: talis enim interitus non est sine gravi sensu: illa inania:

Ipse summis saxis fixus asperis, evisceratus,
Latere pendens, saxa spargens tabo, sanie et sanguine atro.

Non ipsa saxa magis sensu omni vacabant quam ille 'latere pendens,' cui se hic cruciatum censet optare. Quam essent dura, si sentiret, nulla sine sensu! Illud vero perquam inane:

Neque sepulcrum quo recipiat habeat portum corporis,
Ubi remissa humana vita corpus requiescat malis.

2. Tacitus—*Annals*, xiv., 14.

Vetus illi cupido erat curriculo quadrigarum insistere, nec minus foedum studium cithara ludicrum in modum canere. concertare equis regium et antiquis ducibus factitatum memorabat, idque vatum laudibus celebre et deorum honori datum. enimvero cantus Apollini sacros, talique ornatu astare non modo Graecis in urbibus sed Romana apud templa numen praecipuum et praescium. nec iam sisti poterat, cum Senecae ac Burro visum, ne utraque pervinceret, alterum concedere. clausumque valle Vaticana spatium in quo equos regeret, haud promisco spectaculo. mox ultro vocari populus Romanus, laudibusque extollere, ut est vulgus cupiens voluptatum et, si eodem princeps trahat, laetum. ceterum evulgatus pudor non satietatem, ut rebantur, sed incitamentum attulit. ratusque dedecus molliri, si plures foedasset, nobilium familiarum posteros egestate venales in scenam deduxit; quos fato perfunctos ne nominatim tradam, maioribus eorum tribuendum puto. nam et eius flagitium est, qui pecuniam ob delicta potius dedit, quam ne delinquerent. notos quoque equites Romanos operas arenae promittere subegit donis ingentibus, nisi quod merces ab eo qui iubere potest vim necessitatis adfert.

3. Cicero—*Ad Quintum*, ii., 14.

Verum attende nunc, mi optime et suavissime frater, ad ea dum rescribo, quae tu in hac eadem brevi epistola πραγματικῶς valde scripsisti. De quo petis, ut ad te nihil occultans, nihil dissimulans, nihil tibi indulgens germane fraterneque rescribam, id est, utrum voles ut dixerimus ad expediendum te, si causa sit, commorere. Si, mi Quinte, parva aliqua res esset, in qua sciscitarere quid vellem, tamen, quum tibi permissurus essem ut faceres quod velles, ego ipse quid vellem ostenderem. In hac vero re hoc profecto quaeris, cuius modi illum annum, qui sequitur, exspectem: plane aut tranquillum nobis aut certe munitissimum: quod cotidie domus, quod forum, quod theatri significationes declarant, neque laborant, quod mea conscientia copiarum nostrarum, quod Caesaris, quod Pompeii gratiam tenemus. Haec me, ut confidam, faciunt. Sin aliquis

erumpet amentis hominis furor, omnia sunt ad eum frangendum expedita. Haec ita sentio, iudico, ad te explorate scribo. Dubitare te non adsentatorie, sed fraterne veto. Qua re suavitatis equidem nostrae fruendae causa cuperem te ad id tempus venire, quod dixeras, sed illud malo tamen, quod putas magis . . . . illa etiam magni aestimo, *ἀμφιλαφίαν* illam tuam et exspectationem debitorum tuorum. Illud quidem sic habeto, nihil nobis expeditis, si valebimus, fore fortunatius. Parva sunt, quae desunt, pro nostris quidem moribus et ea sunt ad explicandum expeditissima, modo valeamus. Ambitus redit immanis. Numquam fuit par. Idib. Quinct. fenus fuit—S—ex . . . coitione Memmii, est quo cum Domitio habuit, hanc Scaurus unum vincere. Messala flaccet. Non dico *ὑπερβολάς*, vel HS centiens constituunt in praerogativa pronunciare. Res ardet invidia. Tribunicii candidati, compromiserunt, HS quingenis in singulos apud M. Catonem depositis, petere eius arbitratu, ut, qui contra fecisset, ab eo condemnaretur. Quae quidem comitia si gratuita fuerint, ut putantur, plus unus Cato potuerit quam omnes leges omnesque iudices.

English Language and Literature.

Examiner, Professor Moffett, LL.D.

1. Divide into periods the history of the English Language, and characterize the *vocabulary* of each period.

2. Give the plurals of *cupful, Frenchman, Norman, Mussulman, knight-templar, bandit, virtuoso, appendix, index, ignis fatuus.*

3. Conjugate the verbs :—*Lie, lay, bear, weave, cleave, strew, fly, flow.*

4. Explain the following terms :—*Etymology, Syntax, the Celtic element in the vocabulary, Intransitive Verb, Hybrid, Solecism, Blank Verse.*

5. Write a rapid sketch of Clive's career ; not going into details, but confining yourself to the great facts, and giving dates wherever you can.

6. Relate the story of Nuncomar ; and give Macaulay's judgment on the conduct of Hastings in the case.

7. Write notes on the following passages :—

"The bold Bavarian in a luckless hour,
Tries the dread summits of Caesarean pow'r,
With unexpected legions bursts away,
And sees defenceless realms receive his sway :
Short sway !—fair Austria spreads her mournful charms ;
The queen, the beauty, sets the world in arms ;"—

8. "His fall was destined to a barren strand,
A petty fortress, and a dubious hand."

9. "Ye Towers of Julius, London's lasting shame,
With many a foul and midnight murder fed,
Revere his Consort's faith, his Father's fame,
And spare the meek Usurper's holy head !
Above, below, the rose of snow,
Twin'd with her blushing foe, we spread :
The bristl'd Boar in infant-gore,
Wallows beneath the thorny shade."

10. Write out the stanzas of Gray's *Elegy* that respectively commence with the following lines :—

a. "Beneath those rugged elms, that yew-tree's shade,"—
b. "For them no more the blazing hearth shall burn,"—
c. "But Knowledge to their eyes her ample page,"—
d. "Th' applause of list'ning senates to command,"—

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11. In what terms does Goldsmith, in *The Traveller*, describe—
a. The happiness and hospitality of his Brother's home?
b. His own sympathy with mankind?
c. His wanderings in France?

12. Quote from *The Deserted Village* the Poet's opinions on large demesnes and emigration, and his sentiments on retirement and the pleasures of poetry.

13. Quote from *The Ancient Mariner* the stanzas that respectively commence with the following lines:—
a. "The fair breeze blew, the white foam flew,"—
b. "O happy living things, no tongue"—
c. "Oh sleep! it is a gentle thing,"—
d. "And now 'twas like all instruments,"—
e. "I pass, like night, from land to land;"—
f. "O sweeter than the marriage feast,"—

14. How does Coleridge describe "Life-in-Death"?

Science Scholarships.

Arts and Engineering.

Mathematics.—*Examiner, Professor Allman*, LL.D.

1. Three points A, B and C being given, draw through C a straight line so that the sum of the squares on the perpendiculars let fall on it from A and B shall be given.

2. In a plane triangle prove that

$$a \cot A + b \cot B + c \cot C = 2 (R + r),$$

where R and r are the radii of the circumscribed and inscribed circles.

3. If $2\cos\phi = x + \frac{1}{x}$, prove that $2\cos n\phi = x^n + \frac{1}{x^n}$.

4. In a right-angled spherical triangle prove the formulae—

$$\cos c = \cos a \cos b, \quad \sin c \sin A = \sin a, \quad \cos B = \sin A \cos b.$$

5. Given of a spherical triangle the base and the sum of the cosines of the sides, find the locus of the vertex.

6. Prove that every solid angle is contained by plane angles, which are together less than four right angles. Show that there can be only five regular solids.

7. Prove that the polynomial $(a+b+c)^m - a^m - b^m - c^m$, is divisible by the product $(a+b)(b+c)(c+a)$, when m is odd.

8. Transform the following equation into another wanting the second term $x^5 + 5x^4 + 3x^3 + x^2 + x - 1 = 0$.

9. Solve the equation, $x^4 - 11x^2 + 18x - 8 = 0$, which has equal roots.

10. Find the equations of the straight lines, which pass through the point (0, 1), and are inclined at an angle of 30° to the line $y + x = 2$.

11. Find the equation of the tangent at the point x', y' of the circle $x^2 + y^2 = r^2$.

12. Show that three straight lines will pass through the same point if their equations being multiplied each by any constant quantity, and added together, the sum is identically equal to cipher.

Hence show that the three bisectors of the angles of a triangle intersect in the same point.

1. Eliminate θ between the two equations :—

$$x\sin\theta + y\cos\theta = \tfrac{1}{2}\sin 2\theta,\ x\cos\theta - y\sin\theta = \cos 2\theta.$$

If, on substituting $\xi\cos\alpha + \eta\cos\beta$ for x, and $\xi\sin\alpha + \eta\sin\beta$ for y, $ax^2 + 2bxy + cy^2$ become $A\xi^2 + 2\beta\xi\eta + C\eta^2$, show that $\dfrac{AC - B^2}{\sin^2(\alpha-\beta)} = ac - b^2$.

2. Investigate an expression for the area of a spherical triangle in terms of two sides and the included angle.

3. Prove that a pyramid is one-third of a prism on the same base and between the same parallels.

4. Given two sides of a triangle and the included angle, find a series for the logarithm of the third side.

5. Find the area of the triangle included between the lines whose equations are $\dfrac{x}{\alpha} = \dfrac{y}{\beta}$, $\dfrac{x}{\alpha'} = \dfrac{y}{\beta'}$, $\dfrac{x}{a} + \dfrac{y}{b} = 1$.

6. Find the equation of the circle circumscribing the triangle formed by the lines $\alpha=0$, $\beta=0$, $\gamma=0$.

7. The roots of the equation $x^4 + px^3 + qx^2 + rx + s = 0$, are α, β, γ, δ ; find $\alpha^2\beta^2\gamma^2 + \alpha^2\gamma^2\delta^2 + \alpha^2\beta^2\delta^2 + \beta^2\gamma^2\delta^2$ in terms of the co-efficients.

8. Calculate :—

$$\begin{vmatrix} 1, & 1, & 1, & 1 \\ \alpha, & \beta, & \gamma, & \delta \\ \alpha^2, & \beta^2, & \gamma^2, & \delta^2 \\ \alpha^3, & \beta^3, & \gamma^3, & \delta^3 \end{vmatrix}.$$

Senior Scholarships.

Greek.—*Examiner, Professor D'Arcy Thompson,* M.A.

Translate the following passage :—

ὁ δὲ Νικίας ἐνόμιζε μὲν καὶ αὐτὸς πονηρὰ σφῶν τὰ πράγματα εἶναι, τῷ δὲ λόγῳ οὐκ ἐβούλετο αὐτὰ ἀσθενῆ ἀποδεικνύναι, οὐδ' ἐμφανῶς σφᾶς ψηφιζομένους μετὰ πολλῶν τὴν ἀναχώρησιν τοῖς πολεμίοις καταγγέλτους γίγνεσθαι· λαθεῖν γὰρ ἄν, ὁπότε βούλοιντο, τοῦτο ποιοῦντες πολλῷ ἧσσον. τὸ δέ τι καὶ τὰ τῶν πολεμίων, ἀφ' ὧν ἐπὶ πλέον ἢ οἱ ἄλλοι ᾐσθάνετο αὐτῶν, ἐλπίδος τι ἔτι παρεῖχε πονηρότερα τῶν σφετέρων ἔσεσθαι, ἢν καρτερῶσι προσκαθήμενοι· χρημάτων γὰρ ἀπορίᾳ αὐτοὺς ἐκτρυχώσειν, ἄλλως τε καὶ ἐπὶ πλέον ἤδη ταῖς ὑπαρχούσαις ναυσὶ θαλασσοκρατούντων. καὶ, ἦν γάρ τι καὶ ἐν ταῖς Συρακούσαις βουλόμενον τοῖς Ἀθηναίοις τὰ πράγματα ἐνδοῦναι, ἐπεκηρυκεύετο ὡς αὐτὸν καὶ οὐκ εἴα ἀπανίστασθαι. ἃ ἐπιστάμενος τῷ μὲν ἔργῳ ἔτι ἐπ' ἀμφότερα ἔχων καὶ διασκοπῶν ἀνεῖχε, τῷ δ' ἐμφανεῖ τότε λόγῳ οὐκ ἔφη ἀπάξειν τὴν στρατιάν. εὖ γὰρ εἰδέναι ὅτι Ἀθηναῖοι σφῶν ταῦτα οὐκ ἀποδέξονται ὥστε μὴ αὐτῶν ψηφισαμένων ἀπελθεῖν.

Thucydides, vii., 48.

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1. Translate the following passages, and add brief notes explanatory of political allusions :—

(*a.*) ΚΛ. *οὔ τοί μ' ὑπερβαλεῖσθ' ἀναιδείᾳ μὰ τὸν Ποσειδῶ,*
ἢ μή ποτ' ἀγοραίου Διὸς σπλάγχνοισι παραγενοίμην.
ΑΛΛ. *ἔγωγε νὴ τοὺς κονδύλους, οὓς πολλὰ δὴ 'πὶ πολλοῖς*
ἠνεσχόμην ἐκ παιδίου, μαχαιρίδων τε πληγάς,
ὑπερβαλεῖσθαί σ' οἶομαι τούτοισιν, ἢ μάτην γ' ἂν
ἀπομαγδαλίας σιτούμενος τοσοῦτος ἐκτραφείην.
ΚΛ. *ἀπομαγδαλίας ὥσπερ κύων ; ὦ παμπόνηρε, πῶς οὖν*
κυνὸς βορὰν σιτούμενος μαχεῖ σὺ Κυνοκεφάλλῳ ;

Appendix E.

Scholarship Examinations.

ΑΛΛ. καὶ νὴ Δί' ἄλλα γ' ἐστί μου κόβαλα παιδὸς ὄντος.
ἐξηπάτων γὰρ τοὺς μαγείρους ἐπιλέγων τοιαυτί·
σκέψασθε, παῖδες· οὐχ ὁρᾶθ'; ὥρα νέα, χελιδών.
οἱ δ' ἔβλεπον, κἀγὼ 'ν τοσούτῳ τῶν κρεῶν ἔκλεπτον.
ΧΟΡ. ὦ δεξιώτατον κρέας, σοφῶς γε προὐνοήσω·
ὥσπερ ἀκαλήφας ἐσθίων πρὸ χελιδόνων ἔκλεπτες.
ΑΛΛ. καὶ ταῦτα δρῶν ἐλάνθανόν γ'· εἰ δ' οὖν ἴδοι τις αὐτῶν,
ἀποκρυπτόμενος εἰς τὰ κοχώνα τοὺς θεοὺς ἀπώμνυν·
ὥστ' εἶπ' ἀνὴρ τῶν ῥητόρων ἰδών με τοῦτο δρῶντα·
οὐκ ἔσθ' ὅπως ὁ παῖς ὅδ' οὐ τὸν δῆμον ἐπιτροπεύσει.

ARISTOPHANES—*Knights*, 409–426.

(*b.*) καὶ μὴν ἀκοῦσαί γ' ἄξιον τῶν πραγμάτων.
εὐθὺς γὰρ αὐτοῦ κατόπιν ἐνθένδ' ἰέμην·
ὁ δ' ἄρ' ἔνδον ἐλασίβροντ' ἀναρρηγνὺς ἔπη
τερατευόμενος ἤρειδε κατὰ τῶν ἱππέων,
κρημνοὺς ἐρείδων καὶ ξυνωμότας λέγων
πιθανώτατ'· ἡ βουλὴ δ' ἅπασ' ἀκρωμένη
ἐγένεθ' ὑπ' αὐτοῦ ψευδατραφάξυος πλέα,
κἄβλεψε νᾶπυ, καὶ τὰ μέτωπ' ἀνέσπασεν.

Ibid., 624–631.

(*c.*) ὁ δὲ ταῦτ' ἀκούσας ἐκπλαγεὶς ἐφλυάφα.
κᾆθ' εἶλκον αὐτὸν οἱ πρυτάνεις χοἱ τοξόται.
οἱ δ' ἐθορύβουν περὶ τῶν ἀφύων ἑστηκότες·
ὁ δ' ἠντιβόλει γ' αὐτοὺς ὀλίγον μεῖναι χρόνον·
ἵν' ἄτθ' ὁ κήρυξ οὐκ Λακεδαίμονος λέγει
πύθησθ'· ἀφῖκται γὰρ περὶ σπονδῶν λέγων.
οἱ δ' ἐξ ἑνὸς στόματος ἅπαντες ἀνέκραγον·
νυνὶ περὶ σπονδῶν; ἐπειδή γ', ὦ μέλε,
ᾔσθοντο τὰς ἀφύας παρ' ἡμῖν ἀξίας;
οὐ δεόμεθα σπονδῶν· ὁ πόλεμος ἑρπέτω.
ἐκεκράγεσάν τε τοὺς πρυτάνεις ἀφιέναι·
εἶθ' ὑπερεπῄδων τοὺς δρυφάκτους πανταχῇ.
ἐγὼ δὲ τὰ κορίαν' ἐπριάμην ὑποδραμὼν
ἅπαντα τά τε γήτει' ὅσ' ἦν ἐν τἀγορᾷ·
ἔπειτα ταῖς ἀφύαις ἐδίδουν ἡδύσματα
ἀποροῦσιν αὐτοῖς προῖκα, κἀχαριζόμην.
οἱ δ' ὑπερεπῄνουν ὑπερεπύπταζόν τέ με
ἅπαντες οὕτως ὥστε τὴν βουλὴν ὅλην
ὀβολοῦ κοριάννοις ἀναλαβὼν ἐλήλυθα.

Ibid., 664–682.

2. Translate the following passages:—

(*a.*) ταύτης μέντοι τοιαύτης ἀντικαθεστηκυίας πόλεως, ω Λακεδαιμόνιοι, διαμέλλετε καὶ οἴεσθε τὴν ἡσυχίαν οὐ τούτοις τῶν ἀνθρώπων ἐπὶ πλεῖστον ἀρκεῖν, οἳ ἂν τῇ μὲν παρασκευῇ δίκαια πράσσωσι, τῇ δὲ γνώμῃ, ἢν ἀδικῶνται, δῆλοι ὦσι μὴ ἐπιτρέψοντες, ἀλλ' ἐπὶ τῷ μὴ λυπεῖν τε τοὺς ἄλλους καὶ αὐτοὶ ἀμυνόμενοι μὴ βλάπτεσθαι τὸ ἴσον νέμετε. μόλις δ' ἂν πόλει ὁμοίᾳ παροικοῦντες ἐτυγχάνετε τούτου· νῦν δ', ὅπερ καὶ ἄρτι ἐδηλώσαμεν, ἀρχαιότροπα ὑμῶν τὰ ἐπιτηδεύματα πρὸς αὐτούς ἐστιν. ἀνάγκη δὲ ὥσπερ τέχνης ἀεὶ τὰ ἐπιγιγνόμενα κρατεῖν· καὶ ἡσυχαζούσῃ μὲν πόλει τὰ ἀκίνητα νόμιμα ἄριστα, πρὸς πολλὰ δὲ ἀναγκαζομένοις εἶναι πολλῆς καὶ ἐπιτεχνήσεως δεῖ. διόπερ καὶ τὰ τῶν Ἀθηναίων ἀπὸ τῆς πολυπειρίας ἐπὶ πλέον ὑμῶν κεκαίνωται. Μέχρι μὲν οὖν τοῦδε ὡρίσθω ὑμῶν ἡ βραδυτής· νῦν δὲ τοῖς τε ἄλλοις καὶ Ποτιδαιάταις, ὥσπερ ὑπεδέξασθε, βοηθήσατε κατὰ τάχος ἐσβαλόντες ἐς τὴν Ἀττικήν, ἵνα μὴ ἀνδρας τε φίλους καὶ ξυγγενεῖς τοῖς ἐχθίστοις προῆσθε καὶ ἡμᾶς τοὺς ἄλλους ἀθυμίᾳ πρὸς ἑτέραν τινὰ ξυμμαχίαν τρέψητε.

THUCYDIDES, i., 71.

(*b.*) καὶ μέλλοντος αὐτοῦ ἀποψύχειν ὥσπερ εἶχεν ἐν τῷ οἰκήματι, αἰσθόμενοί τε ἐξάγουσιν ἐκ τοῦ ἱεροῦ ἔτι ἔμπνουν ὄντα καὶ ἐξαχθεὶς ἀπέθανε παραχρῆμα. καὶ αὐτὸν ἐμέλλησαν μὲν ἐς τὸν Καιάδαν οὗπερ τοὺς κακούργους ἐμβάλλειν· ἔπειτα ἔδοξε πλησίον που κατορύξαι. ὁ δὲ θεὸς ὁ ἐν Δελφοῖς τόν τε τάφον ὕστερον ἔχρησε τοῖς Λακεδαιμονίοις μετενεγκεῖν οὗπερ ἀπέθανε (καὶ νῦν κεῖται ἐν τῷ προτεμενίσματι, ὃ γραφῇ στῆλαι δηλοῦσι), καὶ ὡς ἄγος αὐτοῖς ὂν τὸ πεπραγμένον δύο σώματα ἀνθ' ἑνὸς τῷ Χαλκιοίκῳ ἀποδοῦναι. οἱ δὲ ποιησάμενοι χαλκοῦς ἀνδριάντας δύο ὡς ἀντὶ Παυσανίου ἀνέθεσαν.

THUCYDIDES, i., 134.

3. Translate the following :—

(*a.*) ἐμοὶ μὲν νὴ τὸν Δία καὶ τὸν Ἀπόλλω καὶ τὴν Ἀθηνᾶν (εἰρήσεται γὰρ, εἴτ' ἄμεινον εἴτε μὴ), ὅθ' οὗτος, ὡς ἀπήλλαγμαι, περιὼν ἐλογοποίει, ἐνδηλοί τινες ἦσαν ἀχθόμενοι τῶν πάνυ τούτῳ λαλούντων ἡδέως. καὶ νὴ Δία αὐτοῖς πολλὴ συγγνώμη· οὐ γάρ ἐστι φορητὸς ἄνθρωπος, ἀλλὰ καὶ πλουτεῖ μόνος καὶ λέγειν δύναται μόνος, καὶ πάντες εἰσὶ τούτῳ καθάρματα καὶ πτωχοὶ καὶ οὐδ' ἄνθρωποι. τὸν οὖν ἐπὶ ταύτῃ τῇ ὑπερηφανίας ὄντα, νῦν ἂν ἀποφύγῃ, τί ποιήσειν οἴεσθε; ἐξ ὅτου δὲ τοῦτ' ἂν εἰδείητε ἐγω φράσω· εἰ τοῖς μετὰ τὴν χειροτονίαν τεκμηρίοις θεωρήσαιτε. τίς γάρ ἐστιν ὅστις καταχειροτονηθὲν αὐτοῦ, καὶ ταῦτ' ἀσεβεῖν περὶ τὴν ἑορτὴν, εἰ καὶ μηδεὶς ἄλλος ἐπῆν ἀγών ἔτι μηδὲ κίνδυνος, οὐκ ἂν ἐπ' αὐτῷ τούτῳ κατέδυ καὶ μέτριον παρέσχεν ἑαυτὸν τόν γε δὴ μέχρι τῆς κρίσεως χρόνον, εἰ καὶ μὴ πάντα; οὐδεὶς ὅστις οὐκ ἄν. ἀλλ' οὐ Μειδίας, ἀλλ' ἀπὸ τῆς ἡμέρας ταύτης λέγει, λοιδορεῖται, βοᾷ. χειροτονεῖται τίς; Μειδίας Ἀναγυράσιος προβέβληται. Πλουτάρχου προξενεῖ, τἀπόρρητα οἶδεν, ἡ πόλις αὐτὸν οὐ χωρεῖ. καὶ ταῦτα πάντα ποιεῖ δῆλον ὅτι οὐδὲν ἄλλο ἐνδεικνύμενος ἢ ὅτι "ἐγὼ πέπονθα οὐδὲν ὑπὸ τῆς καταχειροτονίας, οὐδὲ δέδοικα οὐδὲ φοβοῦμαι τὸν μέλλοντα ἀγῶνα." ὃς οὖν, ὦ ἄνδρες Ἀθηναῖοι τὸ μὲν ὑμᾶς δεδιέναι δοκεῖν αἰσχρὸν ἡγεῖται, τὸ δὲ μηδὲν φροντίζειν ὑμῶν νεανικὸν, τοῦτον οὐκ ἀπολωλέναι δεκάκις προσήκει; οὐδὲ γὰρ ἔξειν ὑμᾶς ὅ τι χρήσεσθε αὐτῷ νομίζει. πλούσιος, θρασὺς, μέγα φρονῶν, μέγα φθεγγόμενος, βίαιος, ἀναιδής. ποῦ ληφθήσεται, νῦν ἐὰν διακρούσηται;

DEMOSTHENES—*Contrà Meidiam.*

(*b.*) Explain the following words or expressions :—(1.) ἀντίδοσις. (2.) ἀρχιθέωρος. (3.) τραπεζίτης. (4.) εἰσαγγελία. (5.) εἰσάγειν δίκην. (6.) ἐξούλη. (7.) θεσμοθέτης. (8.) ἔρημος δίκη. (9.) ἐπιβολὴν ἐπιβάλλειν. (10.) ἱεροποιός. (11.) κληρονόμος τῆς δίκης. (12.) προστιμᾶν. (13.) ὑπομοσία. (14.) συμμορίαι.

MATHEMATICS.—*Examiner, Professor Allman,* LL.D.

1. Give a brief account of some of the methods which have been proposed for the elimination of one of the unknown quantities from two algebraic equations containing two unknown quantities.

Solve the equations—

$$(y-2)x^2-2x+5y-2=0, \quad yx^2-5x+4y=0.$$

2. Prove, without the aid of the Integral Calculus, the following theorems of Archimedes :—

The area of the segment of a parabola cut off by any chord is equal to four thirds of the triangle which has the same base and height as the segment;

The volume of the segment of a parabolic conoid, *i.e.*, a paraboloid of revolution, cut off by any plane, is equal to three halves of the cone which has the same base and height as the segment.

3. Investigate the equation of the circle circumscribing the triangle of reference, and give the geometrical interpretation of the result. Investigate also the equation of the sphere circumscribing the tetrahedron of reference.

Appendix E.

Scholarship Examinations.

4. Given the base of a triangle $2c$ and the rectangle under the sides m^2, find the locus of the vertex. Trace the curve distinguishing the cases according as $m > c$, $m = c$, $m < c$.

Prove that the portion of the normal, at any point of the curve, cut off by the axis is $\frac{m^2\rho}{\rho^2 + c^2}$, where ρ is the distance of the point from the centre of the curve.

5. Investigate Lagrange's theorem for expanding $f(y)$ in ascending powers of x, being given $y = z + x\phi(y)$, where z and x are independent.

If $(1 - 2tx + t^2)^{-\frac{1}{2}}$ be expanded in ascending powers of t, x being real and lying between -1 and $+1$, show that the co-efficient of t^n is $\frac{1}{\lfloor n} \frac{1}{2^n} \frac{d^n(x^2-1)^n}{dx^n}$.

6. If the general equation of the second degree in three variables be transformed from one set of rectangular axes to another, prove that there are certain functions of the coefficients which remain unaltered by the transformation.

7. The four faces of a tetrahedron pass each through a fixed point, find the locus of the vertex if the three edges which do not pass through it move each in a fixed plane.

Show that the locus is in general a surface of the third degree, having the intersection of the three planes as a double point; show, further, that it reduces to a cone of the second degree when the four fixed points lie in a plane.

8. If two confocal surfaces intersect, and a radius of one be drawn parallel to the normal to the other at any point of their curve of intersection, prove that this radius is of constant length.

9. Define, and investigate the conditions for, an umbilic. Find the umbilics of the surface—

$$2z = \frac{x^2}{p} + \frac{y}{q}.$$

10. Investigate the conditions which must be satisfied in order that two functions of two variables shall be mutually dependent: prove conversely that if this equation is identically satisfied the two functions are dependent on one another.

Give the generalized theorem for any number of variables.

Are the following functions mutually dependent or not?—

$$x + 2y + z,\ x - 2y + 3z,\ 2xy - xz + 4yz - z^2.$$

11. Integrate the differential equations:—

$$3z^2 \frac{dz}{dx} - az^3 = x + 1\ ; \quad x^2 \frac{d^2y}{dx^2} + 3x\frac{dy}{dx} + y = (1 - x^2)^{-2}\ ;$$

$$\frac{dx}{2y - 5x + e^t} = \frac{dy}{x - 6y + e^{2t}} = dt.$$

12. Integrate the partial differential equation:—

$$x\frac{dz}{dx} + y\frac{dz}{dy} + t\frac{dz}{dt} = az + \frac{xy}{t}.$$

NATURAL PHILOSOPHY.—*Examiner, Professor Curtis,* LL.D.

1. Find the force which, acting in parallel lines, would cause a body to move in a conic section, the direction of the force being perpendicular to the principal axis.

2. Prove that the moment of inertia of a triangular plate, with respect to an axis perpendicular to its plane, and passing through its centre of gravity $=\frac{\mu}{36}(a^2+b^2+c^2)$.

3. Determine the density of a hollow sphere of given internal and external surfaces, which will just float in a given fluid.

4. Prove that the chromatic aberration of a pencil refracted directly through a thin lens $=\frac{\pi v^2}{f}$.

5. Show that the duration of twilight at the equator

$$=\frac{12}{\pi}\sin^{-1}(\text{sin. } 18^\circ \text{ sec. } \delta), \text{ hours.}$$

6. ABCD is a quadrilateral inscribed in a circle; four forces act codirectionally with AB, BC, AD, DC, and are inversely proportional to these lines respectively; prove that their resultant is codirectional with the line joining the intersection of the lines AC, DB, to the intersection of the tangents to the circle at B and D.

7. A body describes a conic section under the action of a force directed to its centre; find the law of force.

8. Prove that a homogeneous sphere floating in a liquid will always be in neutral equilibrium, whatever may be the densities of the sphere and of the liquid, provided that the former is less than the latter.

9. An object viewed through a convex lens in two different positions appears in each case equally magnified, but one image is erect, and the other inverted; show that the mean distance of the object from the lens is equal to its focal length.

10. Explain fully the method of calculating the time, duration, and magnitude, of a Lunar Eclipse, and of determining the places at which the first contact, the last contact, or the entire eclipse, is visible.

CHEMISTRY.—*Examiner, Professor Rowney,* PH.D.

1. Describe the method of preparing the sesquioxide of chromium from potassium dichromate.

2. Give an account of silicon, its different allotropic forms and properties.

3. Give the characters by which a bibasic acid may be distinguished from a monobasic acid.

4. Describe the mode of preparing the iodide of ethyl.

5. Explain the difference between atoms and molecules.

6. Describe the mode of preparation and the properties of the binoxide of hydrogen.

7. How is cyanogen gas prepared, give also its composition and properties.

8. Describe the process for extracting zinc from its ores.

9. What action takes place when the tetrafluoride of silicon comes into contact with water?

10. How is aldehyde obtained? State its properties and composition.

11. Describe the method of preparing aniline from benzole.

12. Describe the action that takes place when cyanate of ethyl is heated with caustic potash.

Appendix E.

Scholarship Examinations.

Medical Scholarships.

Second Year's Scholarships.

Natural Philosophy.—*Examiner, Professor Curtis,* LL.D.

1. Explain what is meant by the resultant of a number of forces, and show how to determine the resultant of any number of concurrent parallel forces.

2. Describe the compound microscope; how must the eyepiece be adjusted to suit long or short sight; give the reason for this adjustment.

3. When a tuning fork, held near the ear, is turned round its axis, the intensity of the sound sensibly alters; how is this explained?

4. Give Gay Lussac's Law for the expansion of gas; apply it to the following:—a gas occupies 1,000 cubic inches, at 42 Fah.; what volume will it occupy at 42 cent.?

5. What is the ordinary electrical condition of the atmosphere; how is it determined?

6. The resultant of two forces can never be greater than the sum of the two components. In what case is it less, and in what case is it equal to this sum?

7. That the free surface of a heavy liquid contained in an open vessel is horizontal is a particular case of a general law of liquids; give the law.

8. On what difference in constitution does it depend that the velocity of sound in solids is greater than in liquids?

9. Does the specific heat of a liquid increase with the temperature more or less rapidly than that of a solid? Is there any exception to the rule?

10. In the Voltaic pile, as made by its inventor, the discs were all compound, consisting of one of zinc, and one of copper, soldered together; show that the pile works equally well, if the terminal discs be simple, consisting each of one metal, but different from the material of the metallic surface nearest to it, and give the reason why Volta employed compound terminal discs.

11. Explain the principle of the *Unit jar.*

French.—*Examiner, Professor Geisler,* PH.D.

Translate into English:—

Le Tabac.

1. Si, avant l'invention de tabac, l'on était venu dire à quelqu'un: "J'ai une idée; je vais prendre un brévet pour qu'on ne me la vole pas. Voici une plante vénéneuse qui exhale une mauvaise odeur; je vais la mettre en poudre et je proposerai aux gens de se fourrer cette poudre dans le nez. En deux ou trois ans cela leur ôtera l'odorat. Je vais la couper en menus brins, et je proposerai aux gens d'en aspirer la fumée; d'abord cela leur donnera des éblouissements, des vertiges, mais ils finiront par s'y habituer. Tout ce que je demande c'est d'avoir le privilége de vendre seul et j'offre pour ce privilége de payer chaque année quatre-vingts millions à l'état." On aurait pris l'homme pour un fou et son idée pour la plus grande extravagance possible. "Pourquoi," lui aurait-on dit "n'ouvrez-vous pas boutique pour vendre des coups de bâton? vous auriez, certes, pour le moins autant de débit."

Alphonse Karr—*Voyage dans Paris.*

2. Etendu par terre, le général ne donne plus aucun signe de vie ; son visage a déjà la lividité de la mort. Le prince Eugène ne veut pas laisser à l'ennemi ce sinistre trophée ; par son ordre une fosse est creusée dans la neige, froid linceul qui bientôt enveloppe et recouvre le corps du général Ornano. Tous ceux qui assistent à cette triste cérémonie, jettent un dernier adieu au vaillant soldat que la mort vient d'enlever ; puis chacun s'éloigne. Mais le capitaine Delaberge, aide-de-camp du général, ne peut pas supporter la pensée d'abandonner ainsi le corps de son chef. Il revient sur le lieu de la sépulture, écarte à grand peine la neige, ouvre cette tombe glaciale, place ce corps inanimé en travers de son cheval et reprend sa route. A peine a-t-il fait quelques pas, qu'un autre boulet traverse le cheval du capitaine Delaberge, et celui-ci roule à terre avec son précieux fardeau. Le capitaine n'est pas blessé ; au moment où il se relève, il lui semble entendre comme un faible soupir s'exhaler de la poitrine du général. C'est un vivant que son dévouement a enlevé à la tombe.

DE BAZANCOURT—*La France.*

3. Les éléphants sauvages sont pris au moyen d'éléphants apprivoisés et dressés à cette chasse. On emploie surtout les femelles qui s'y prennent fort adroitement. Les mâles se promènent souvent tout seuls, et lorsque les femelles en aperçoivent un de loin, elles se mettent tranquillement à paître comme si de rien n'était. La victime s'approche à pas lents et les trois éléphants commencent une conversation à leur manière. Les deux femelles prennent le mâle entre elles et l'occupent, donnant ainsi le temps aux chasseurs embusqués de s'approcher par derrière avec sournoiserie et d'attacher les jambes de l'éléphant sauvage au moyen d'un fort câble qu'ils lient ensuite à quelque arbre vigoureux. Les femelles aident parfois à le faire, et lorsqu'elles voient les nœuds solidement attachés, elles partent. La fureur du pauvre délaissé qui ne peut suivre ses amies, est facile à comprendre ; elles reviennent s'il se démène avec trop de violence et le mettant à la raison à grands coups de trompe. Les efforts inutiles, les fouets, et la faim surtout, apprivoisent bientôt le sauvage, et quelques semaines suffisent pour changer l'animal superbe en esclave docile.

Translate into French :—

It is in vain for you to ask money from a miser ; he never will give you any. I cannot accompany you to the country, having some business that requires my presence here. The excessive heat which we had last summer has occasioned diseases. Gentlemen, you are mistaken. Have you read the letters ? I have not yet read them.

By observing these rules, you may avoid mistakes. He left without paying his debts. After having terminated some affairs at home, I shall begin by paying some visits. He is just gone out. This wood is to be sold. You have no cause to be angry with me. Will you have your gloves washed. We do not fear that it will give you pain. I doubt whether that is true.

GERMAN.—*Examiner, Professor Geisler,* PH.D.

Translate into English :—

Fr. v. Mirville. Dacht' ich's doch, dass ich Sie beide würde beisammen finden !—Warum gleichen doch nicht alle Haushaltungen der Ihrigen ? Nie Zank und Streit ! Immer *ein* Herz und *eine* Seele ! Das ist erbaulich ! Das ist doch ein Beispiel ! Die Tante ist gefällig wie ein Engel, und der Onkel geduldig wie Hiob.

Appendix E.

Scholarship Examinations.

Oberst. Wahr gesprochen, Nichte! Man muss Hiob's Geduld haben, um sie bei solchem Geschwätz nicht zu verlieren.

Fr. v. Dorsigny. Die Nichte hat Recht, man muss so gefällig sein, wie ich, um solche Albernheiten zu ertragen.

Oberst. Nun, Madame! unsere Nichte hat mich seit meinem Hiersein fast nie verlassen. Wollen wir *sie* zum Schiedsrichter nehmen!

Fr. v. Dorsigny. Ich bin's vollkommen zufrieden und unterwerfe mich ihrem Ausspruch.

Fr. v. Mirville. Wovon ist die Rede?

Fr. v. Dorsigny. Stelle Dir vor, mein Mann untersteht sich, mir in's Gesicht zu behaupten dass *er's* nicht gewesen sei, den ich vorhin für meinen Mann hielt.

Champagne. Euer Gnaden begreifen wohl, dass er sich da nicht lange mit Abschiednehmen aufhalten konnte. Champagne, sagte er zu mir, ich gehe in wichtigen Staatsangelegenheiten—nach Sankt—Petersburg. Der Staat befiehlt—ich muss gehorchen—beim ersten Postwechsel schreib' ich meiner Frau—was übrigens die Heirath zwischen meinem Neffen und meiner Tochter betrifft—so weiss sie, dass ich vollkommen damit zufrieden bin.

Dorsigny. Still! Hören wir, was er schreibt!

Fr. v. Dorsigny (liest). "Haben Sie die Güte, mein Herr, sich noch diesen Abend in mein Haus zu bemühen, und den Ehecontract mitzubringen, den Sie für meine Tochter aufgesetzt haben. Ich habe meine Ursachen, diese Heirath noch in dieser Nacht abzuschliessen."

Valcour. Dein Herr Onkel findet es nicht für gut, mich aus meinem Irrthum zu reissen; die Postchaise lenkt wieder um, nach Paris zurück, und da bin ich nun—Ich hoffe, Du kannst Dich nicht über meinen Eifer beklagen.

Dorsigny. Sehr verbunden, mein Freund, für die mächtigen Dienste, die Du mir geleistet hast! Es thut mir leid um die unendliche Mühe, die du dir gegeben hast.

Champagne. Nur gemach! Lassen Sie mich meinen Plan entwickeln. Sie spielen also Ihren Onkel! Sie sind nun Herr hier im Hause, und Ihr erstes Geschäft ist, die bewusste Heirath wieder aufzuheben. Sie haben den jungen Lormeuil nicht mitbringen können, weil er—weil er gestorben ist. Unterdessen erhält Frau v. Dorsigny einen Brief von Ihnen, als dem Neffen, worin Sie um die Cousine anhalten. Das ist *mein* Amt! Ich bin der Kourier, der den Brief von Strassburg bringt—Frau von Dorsigny liebt ihren Neffen; sie nimmt diesen Vorschlag mit der besten Art von der Welt auf; sie theilt ihn Ihnen als ihrem Eheherrn, mit, und Sie willigen, wie billig ein. Nun stellen Sie sich, als wenn Sie auf's eiligste abreisen müssten; Sie geben der Tante unbedingte Vollmacht, diese Sache zu Ende zu bringen. Sie reisen ab, und den andern Tag erscheinen Sie in Ihren natürlichen Haaren und in der Uniform Ihres Regimentes wieder, als wenn Sie eben von Ihrer Garnison herkämen. Die Heirath geht vor sich; der Onkel kommt angezogen mit seinem Bräutigam, der den Platz glücklich besetzt findet, und Nichts besseres zu thun hat als umzukehren und sich entweder zu Toulon oder in Ostindien eine Frau zu holen.

SCHILLER—*Der Neffe als Onkel.*

Translate into German:—

Had you come earlier, you would have found me at home. Tell me when you will come. While I was there, tranquillity prevailed in the country. Since you are my friend, you will not hesitate to tell me the truth. We shall defend our country with courage, and we shall quietly

await the enemy. I am not at all surprised at your saying so. He has been here at least three times. Have you seen our friend lately? Yes, I saw him the other day, and I hope I shall see him again very soon. If they had not surrendered they would have all been killed. As I see, you enjoy good health. Nothing important has happened. What business have you undertaken? Our house is surrounded with a garden. I have just sent back the books you had lent me. We met with some friends at Paris.

NATURAL HISTORY.—*Examiner, Professor Melville,* M.D.

ZOOLOGY.

1. Give a description of the circulatory system in fishes.
2. Give a tabular view of the classification of fishes, and enumerate the special characters of the orders adopted.
3. State the characteristics of the orders of birds.
4. Name the families of the marsupiata, and state their characteristics.
5. State the characters of the sub-orders of the cheiroptera.

BOTANY.

1. Describe the various forms of vessels in plants.
2. Describe generally the structure of bark.
3. Enumerate the various forms of stipules, and give examples.
4. Name the different forms of the irregular gamopetalous corolla.
5. State the characters of the natural orders umbelliferæ and compositæ.

CHEMISTRY.—*Examiner, Professor Rowney,* PH.D.

1. Describe the properties and uses of the compounds obtained by acting on sodium chloride with sulphuric acid.
2. What action takes place when carbon dioxide is passed through a tube containing heated charcoal?
3. How is metallic mercury obtained?
4. Give an explanation of the terms oxidation and deoxidation.
5. How is hydrofluoric acid obtained, and to what uses is it applied?
6. What compounds are formed when sulphuric acid acts upon metallic copper?
7. Describe the method of obtaining iodine from kelp.
8. Explain the meaning of the terms molecule and atom.
9. What action takes place when sulphurous acid is passed into a solution of a persalt of iron.
10. Describe the method of obtaining metallic aluminium.
11. Mention the principal sources of heat.
12. How would you detect the presence of sugar in urine.

ANATOMY.—*Examiner, Professor Cleland,* M.D.

1. Describe the spinous processes in the different regions of the vertebral column, in the different parts of those regions, and in those individual vertebræ in which they are distinctive.
2. Give as much information as you can with regard to as many of the foramina of the temporal bone as you remember.

Appendix E.
Scholarship Examinations.

3. Describe the synovial membrane of the knee joint; also state the positions in which the seven facets of the patella come respectively into contact with the femur.

4. Describe the serratus magnus and levator anguli scapulæ muscles, and their actions.

5. Describe the supinator longus, flexor longus pollicis, and flexor profundus digitorum muscles, and their actions.

6. Describe the tibialis anticus, tibialis posticus, peroneus longus, brevis and tertius, and their actions.

PHYSIOLOGY.—*Examiner, Professor Cleland,* M.D.

1. Contrast cartilage and bone in respect of their chemical composition, their mode of nutrition, and their manner of growth.

2. State the characters of a white fibre, and those of a yellow elastic fibre.

3. Give a full description of unstriped muscular fibre.

4. Describe the structure of a nail.

5. Describe the actions of the stomach on food.

6. Describe the theory of reflex action and give an illustration.

THIRD YEAR'S SCHOLARSHIPS.

ANATOMY.—*Examiner, Professor Cleland,* M.D.

1. Describe the mechanism of the longitudinal and transverse arches of the foot, pointing out the conditions of ligaments when the weight of the body is superimposed and removed.

2. Give a full and particular account of the adductors magnus, longus and brevis muscles.

3. Describe the diaphragm.

4. Describe the arteries supplied to the muscles of the scapula and upper half of the humerus.

5. Describe the lobes, fissures, and ligaments of the liver.

6. Describe the third ventricle of the brain.

PHYSIOLOGY.—*Examiner, Professor Cleland,* M.D.

1. Describe the composition of the gastric juice, and its actions in digestion.

2. Describe the processes of absorption of nourishment by intestinal villi.

3. Explain what is meant by blood pressure. State its amount, and how it is estimated.

4. Describe the microscopic structure of the substance of the lung.

5. Describe the microscopic arrangements which produce each of the appearances visible with the naked eye in a vertical transverse section of a minutely injected kidney.

6. Describe the circumstances which regulate or affect coagulation of the blood, and state what is known as to the cause of coagulation, mentioning the facts on which you found your opinions.

Fourth Year's Scholarships.

Physiology.—*Examiner, Professor Cleland,* M.D.

1. Describe the chemical composition of striped muscle, and its microscopic structure, including its vascular and nervous supply.
2. Describe how bones increase in dimensions, mentioning the evidence on which your statements are founded.
3. Give a short account of the development of the eye.
4. Describe the functions of the pancreas, mentioning the evidence on which your statements rest.
5. Describe the effects of an interrupted and of a continuous current of electricity on a nerve.
6. Describe the differences between the blood of the splenic vein, that of the portal, and that of the hepatic vein.

Midwifery.—*Examiner, Professor Doherty,* M.D.

1. What anatomical arrangements naturally existent tend to prevent the occurrence of prolapsus uteri? An accidental laceration sometimes takes place which particularly predisposes to it; what is the nature of this laceration, what its cause, how is it to be avoided, and why does prolapse frequently follow it?
2. With what other mispositions may prolapse be confounded? What are its distinctive characteristics?
3. When prolapse in full degree exists, that is to say in procedentia, what effect has it on the urethra and adjacent viscera?
4. Describe hernia of the bladder towards the vagina, acute and chronic; describe also intestinal hernia in a similar direction. What may be the result of their presence during labour? What treatment will be required?

Surgery.—*Examiner, Professor Browne,* M.D.

1. Describe a case of caries of bone. What bones are most frequently attacked, and what are the symptoms which distinguish it from necrosis, and what are the symptoms which mark the disease when it is of syphilitic origin?
2. Describe a case of osteo-sarcoma, and its progress if not arrested when it occurs in the lower jaw.
3. A ball passes into the chest at the right nipple, and escapes at the lower angle of the scapula; what are the circumstances which would lead you to hope for recovery, and what are those which would point to a fatal result in such case?
4. How may an injury of the chest prove rapidly fatal without any external wound, and what are the pathological changes which you would expect to find on post-mortem examination from the symptoms present during life?

Practice of Medicine.—*Examiner, Professor Colahan,* M.D.

1. Describe the nature, varieties, and causes of tumours of the brain. Mention the symptoms which would induce you to apprehend their existence, also their usual results.
2. Mention the causes and varieties of atrophy of the brain, and the symptoms which distinguish this form of brain disease from all others.

Appendix E. Scholarship Examinations.

3. Enumerate the diseases of the spinal cord and its membranes. State the differential diagnosis of each disease, also their causes.

4. State the diagnosis between paralysis agitans and senile trembling.

5. Mention how you would distinguish between delirium tremens and inflammation of the brain or its membranes.

Engineering Scholarships.

Third Year's Scholarship.

Natural Philosophy.—*Examiner, Professor Curtis,* LL.D.

1. Assuming the law of composition of two intersecting forces, prove the law of composition of two parallel forces, and conversely.

2. An isosceles triangle rests in a horizontal position, supported by a vertical prop at each angle; its weight is 6 lbs.; a weight of 4 lbs. is placed at the middle point of the line joining the vertex to the centre of the base. Calculate the pressure on each prop.

3. Two cords, of lengths a and b, are connected at one extremity of each, the other extremities being fixed to two points in the same horizontal line; to the point where the strings are united a weight W is attached; if the two portions of the string are inclined to each other at a right angle, prove that T_1, T_2, the tensions along them, are equal to $\frac{Wb}{\sqrt{a^2+b^2}}$ and $\frac{Wa}{\sqrt{a^2+b^2}}$, respectively.

4. Establish the formulæ, which determine the motion of a heavy body down an inclined plane, its initial velocity being given.

5. A heavy body is projected with a velocity of 64 feet per second in a direction making an angle of 30° with the horizon; when, and where, will it reach the horizon again?

6. Describe experiments by which the existence of nodes and loops is proved—

(*a*) In the case of a vibrating string.
(*b*) In the case of a vibrating column of air.

7. Describe Daniell's hygrometer; state its defects, and explain how these defects have been overcome by Regnault.

8. Explain the difference in the mode of using the sine galvanometer and the tangent galvanometer.

*9. If the apparent dip be taken by means of a dip needle, whose plane of motion is vertical at each of two observations, but is in neither case coincident with the magnetic meridian, prove that

$$\cot^2\delta = \frac{\cot^2\delta_1 + \cot^2\delta_2 - 2\cos\alpha\cot\delta_1\cot\delta_2}{\sin^2\alpha}$$

where δ is the true dip, δ_1, δ_2, are the observed angles, and α is the angle included between the two planes of observation.

*10. The radii of the external and internal surfaces of a pair of Magdeburgh hemispheres are 6 inches and 5·75 inches respectively, the pressure of the external air is equivalent to 15 lbs. per square inch, the density of the internal air is one-fourth that of the external; calculate the value of each of the two equal and opposite forces, which will just draw the hemispheres asunder.

MATHEMATICS.—*Examiner, Professor Allman,* LL.D.

1. Find the locus of the middle points of chords, parallel to a given line, of a curve of the second degree.

2. Prove, from first principles, that the sum of the squares of any pair of conjugate diameters of an ellipse is constant.

3. Find the polar equation of the parabola, the focus being pole.

4. Prove the theorem of Leibnitz for finding any differential co-efficient of the product of two functions of x.

5. Find when $\frac{x}{(a+x)(b+x)}$ is a maximum; find also its maximum value.

6. Find the equation of the tangent at any point of the curve—

$$x^{\frac{2}{3}}+y^{\frac{2}{3}}=a^{\frac{2}{3}},$$

and prove that the portion of the tangent intercepted between the axes is of constant length.

7. Investigate an expression for the *radius of curvature* at any point of a curve.

Find the radius of curvature at a vertex of an ellipse.

8. Find the following integrals—

$$\int\frac{dx}{x\sqrt{x^2+a^2}};\ \int\frac{dx}{x^3-a^3};\ \int\frac{d\theta}{\sin\theta};\ \int x^2e^{mx}dx.$$

9. Find the area of a segment of an ellipse.

10. Find the length of an arc of the catenary—

$$y=\frac{a}{2}(e^{\frac{x}{a}}+e^{-\frac{x}{a}}.$$

measured from the vertex.

SESSIONAL EXAMINATIONS, 1876.

FIRST YEAR—GREEK.

PASS.—*Examiner, Professor D'Arcy Thompson,* M.A.

GRAMMAR AND COMPOSITION.

1. Write out in full—with or without accentuation—

(*a*) The singular number of each of the following nouns: *ναύτης*: *γλῶσσα*: *τεῖχος*: *ἰχθυς*: *τριήρης*: *μέλι*:

(*b*) And the plural number of each of the following: *βασιλεύς*: *στρατιώτης*: *στράτευμα*: *ἄναξ*: *ὀδούς*: *κύων*.

2. Write out in full the future tense of the following verbs:—*μάχεσθαι*: *ἀκούειν*: *πίνειν*: *τυγχάνειν*: *λαμβάνειν*: *ἔχειν*.

3. Write out in full, in contracted forms only—

(*a*) The present tense, indicative, active, of *ὁρᾶν*: *μισεῖν*: *δηλοῦν*:

(*b*) The imperfect tense, indicative, active, of *τιμᾶν*: *φιλεῖν*: *χρυσοῦν*:

(*c*) And the present tense, subjunctive, active, of *τιμᾶν*.

4. Give the present infinitives, active and passive, of each of the verbs: *ἵστημι*: *τίθημι*: *δίδωμι*: *ζεύγνυμι*.

Appendix E. Sessional Examinations.

5. Compare (*a*) the adjectives:—*μέλας*: *ἡδύς*: *γλυκύς*: *χαρίεις*: *μικρός*: *σοφός*: and (*b*) the adverbs corresponding to the adjectives:—*ἀληθής*: *ἡδύς*: *σοφός*: *εὐδαίμων*: *ἀγαθός*: *καλός*.

6. Render into Greek the following expressions and sentences:—

(*a*) A brave soldier.
(*b*) A very great danger.
(*c*) The senior-officers and junior-officers of the army of the Hellenes.
(*d*) One foolish man and one wise woman.
(*e*) Once: twice: thrice: five-times: twelve-times: fifty-times: a-thousand-times.
(*f*) Having mounted their horses, they rode away.
(*g*) *He-sets-his-heart-upon*(1) money.
(*h*) You must not *put-your-hand*(2) *to* that work.
(*i*) If your sister were here, I should *give*(3) her the book *back-again*.(3)
(*j*) If I had been there, your father would have given the horse back to me.
(*k*) The enemy, perceiving our cavalry coming on in haste, retreated towards the river.
(*l*) Cyrus, having thus spoken, embraced his children, and shortly afterwards died.

(1) *ἐπιθυμεῖν*. (2) *ἐπιχειρεῖν*. (3) *ἀποδιδόναι*.

XENOPHON—*Anabasis*, Book IV.

1. Translate the following passages:—

ἐνταῦθα εἶχον πάντα τὰ ἐπιτήδεια ὅσα ἐστὶν ἀγαθά, ἱερεῖα, σῖτον, οἴνους παλαιοὺς εὐώδεις, ἀσταφίδας, ὄσπρια παντοδαπά. τῶν δὲ ἀποσκεδαννυμένων τινὲς ἀπὸ τοῦ στρατοπέδου ἔλεγον ὅτι κατίδοιεν στράτευμα καὶ νύκτωρ πολλὰ πυρὰ φαίνοιτο. ἐδόκει δὴ τοῖς στρατηγοῖς οὐκ ἀσφαλὲς εἶναι διασκηνοῦν, ἀλλὰ συναγαγεῖν τὸ στράτευμα πάλιν. ἐντεῦθεν συνῆλθον· καὶ γὰρ ἐδόκει διαθριάζειν. νυκτερευόντων δ' αὐτῶν ἐνταῦθα ἐπιπίπτει χιὼν ἄπλετος, ὥστε ἀπέκρυψε καὶ τὰ ὅπλα καὶ τοὺς ἀνθρώπους κατακειμένους· καὶ τὰ ὑποζύγια συνεπόδισεν ἡ χιών· καὶ πολὺς ὄκνος ἦν ἀνίστασθαι· κατακειμένων γὰρ ἀλεεινὸν ἦν ἡ χιὼν ἐπιπεπτωκυῖα ὅτῳ μὴ παραρρυείη. ἐπεὶ δὲ Ξενοφῶν ἐτόλμησε γυμνὸς ἀναστὰς σχίζειν ξύλα, τάχα ἀναστάς τις καὶ ἄλλος ἐκείνου ἀφελόμενος ἔσχιζεν. ἐκ δὲ τούτου καὶ οἱ ἄλλοι ἀναστάντες πῦρ ἔκαιον καὶ ἐχρίοντο· πολὺ γὰρ ἐνταῦθα εὑρίσκετο χρῖσμα ᾧ ἐχρῶντο ἀντ' ἐλαίου σύειον καὶ σησάμινον καὶ ἀμυγδάλινον ἐκ τῶν πικρῶν καὶ τερεβίνθινον. ἐκ δὲ τῶν αὐτῶν τούτων καὶ μύρον εὑρίσκετο.—(Ch. iv., 9–13.)

2. Translate the following expressions, and parse fully the words to which an asterisk is appended:—

(*a.*) *ἀμφὶ τὴν τελευταίαν φυλακήν.*
(*b.*) *δόξαν* ταῦτα, ἐκήρυξαν οὕτω ποιεῖν.*
(*c.*) *ἡμέρα διέφαινεν.*
(*d.*) *ὀρθίοις τοῖς λόχοις πρὸς τὸν λόφον προσβάλλουσιν.*
(*e.*) *οἱ βάρβαροι ἐτόξευον καὶ ἔβαλλον, ἐγγὺς δ' οὐ προσίεντο*.*
(*f.*) *οἶνον ἐν λάκκοις κονιατοῖς εἶχον.*

(*g.*) πάντα ἐποίησαν τοῖς ἀποθανοῦσιν ἐκ τῶν δυνατῶν, ὥσπερ νομίζεται ἀνδράσιν ἀγαθοῖς.

(*h.*) ὁ ὄχλος ἀκμὴν διέβαινε, ...

(*i.*) εἶπέ τις αὐτῷ τῶν ἐμπείρων ὅτι οἱ ἄνδρες βουλιμιῷεν, καί, εἴ τι φάγοιεν, ἀναστήσοιντο.

(*j.*) οἶνος κρίθινος ἦν ἐν κρατηρσιν, ἐνῆσαν δὲ καὶ αὐταὶ αἱ κριθαὶ ἰσοχειλεῖς·

(*k.*) ἐπὶ φάλαγγος ἐγένετο τὸ στράτευμα.

(*l.*) ὁ στρατηγὸς βάδην ταχὺ ἐφείπετο σὺν τοῖς ὁπλίταις.

(*m.*) προέτρεχεν* ὁ ἀνὴρ ἀπὸ τοῦ δένδρου δύο καὶ τρία βήματα.

(*n.*) εἶχον δὲ θώρακας λινοῦς μέχρι τοῦ ἤτρου, ἀντὶ δὲ τῶν πτερύγων σπάρτα ἐστραμμένα*.

(*o.*) τὴν ὁδὸν ὠδοποίουν ὡς διαβιβάσοντες ἡμᾶς.

(*p.*) οὐ ῥᾴδιόν ἐστι διακόψαι λόχον ὅρθιον προσιόντα*.

(*q.*) εἵλοντο* τοῦτον δρόμου τ' ἐπιμεληθῆναι καὶ τοῦ ἀγῶνος προστατῆσαι.

EURIPIDES—*Hippolytus.*

3. Translate the following passages :—

(*a.*) κἀν τῷδ' ἐπῆγε κέντρον εἰς χεῖρας λαβὼν
πώλοις ὁμαρτῆ· πρόσπολοι δ' ὑφ' ἅρματος
πέλας χαλινῶν εἱπόμεσθα δεσπότῃ
τὴν εὐθὺς Ἀργους κἀπιδαυρίας ὁδόν.
ἐπεὶ δ' ἔρημον χῶρον εἰσεβάλλομεν,
ἀκτή τις ἔστι τοὐπέκεινα τῆσδε γῆς
πρὸς πόντον ἤδη κειμένη Σαρωνικόν.
ἔνθεν τις ἠχὼ χθόνιος ὡς βροντὴ Διὸς
βαρὺν βρόμον μεθῆκε, φρικώδη κλύειν·
ὀρθὸν δὲ κρᾶτ' ἔστησαν οὖς τ' ἐς οὐρανὸν
ἵπποι· παρ' ἡμῖν δ' ἦν φόβος νεανικὸς
πόθεν πότ' εἴη φθόγγος. εἰς δ' ἁλιρρόθους
ἀκτὰς ἀποβλέψαντες ἱερὸν εἴδομεν
κῦμ' οὐρανῷ στηρίζον, ὥστ' ἀφῃρέθη
Σκείρωνος ἀκτὰς ὄμμα τοὐμὸν εἰσορᾶν·
ἔκρυπτε δ' Ἰσθμὸν καὶ πέτραν Ἀσκληπιοῦ.
κἄπειτ' ἀνοιδῆσάν τε καὶ πέριξ ἀφρὸν
πολὺν καχλάζον ποντίῳ φυσήματι
χωρεῖ πρὸς ἀκτάς, οὗ τέθριππος ἦν ὄχος.—(1194–1212.)

(*b.*) ἐγὼ γὰρ αὐτῆς ἄλλον ἐξ ἐμῆς χερὸς
ὃς ἂν μάλιστα φίλτατος κυρῇ βροτῶν
τόξοις ἀφύκτοις τοῖσδε τιμωρήσομαι.
σοὶ δ', ὦ ταλαίπωρ', ἀντὶ τῶνδε τῶν κακῶν
τιμὰς μεγίστας ἐν πόλει Τροιζηνίᾳ
δώσω· κόραι γὰρ ἄζυγες γάμων πάρος
κόμας κεροῦνταί σοι, δι' αἰῶνος μακροῦ
πένθη μέγιστα δακρύων καρπουμένῳ.
ἀεὶ δὲ μουσοποιὸς εἰς σὲ παρθένων
ἔσται μέριμνα, κοὐκ ἀνώνυμος πεσὼν
ἔρως ὁ Φαίδρας εἰς σὲ σιγηθήσεται.—(1420–1430.)

Appendix E.

Sessional Examinations.

First Year—Greek.

Honors.—*Examiner, Professor D'Arcy Thompson,* M.A.

Render into Greek the following:—

Consider this also, Athenians, that you have waged many wars both against democracies and oligarchies. This, indeed, you well know; but perhaps not one of you reflects for what objects you have gone to war against either. What, then, were your objects?

When opposed to democracies, it was either on the ground of private complaints which you could not arrange *by-diplomacy,* (1) or *on-territorial-or-boundary-questions,* (2) or from rivalry, or for the primacy of Greece. When opposed to oligarchies, it has been for none of these reasons, but in defence of your *political-principles* (3) and your freedom; so that I should not scruple to declare my opinion that it were more for your interests that all the Greeks who live under democracies should be at war with you, than that those governed by oligarchies should be friendly to you. For I imagine you could readily have made peace with freemen whenever you wished, while I believe not even friendship to be safe with the subjects of oligarchy; for it is impossible that oligarchs can be well disposed to a commonalty, or men ambitious of rule to men *determined*(4) to live on terms of equality.

(1) *δημοσίᾳ.* (2) Say: *concerning a part of land or bounds.* (3) *πολιτεία.* (4) *ὑρημένοι.*

1. (*a.*) Translate the following:—

Homer—*Iliad,* XVI., 370–393.

πολλοὶ δ' ἐν τάφρῳ ἐρυσάρματες ὠκέες ἵπποι
ἄξαντ' ἐν πρώτῳ ῥυμῷ λίπον ἅρματ' ἀνάκτων·
Πάτροκλος δ' ἔπετο σφεδανὸν Δαναοῖσι κελεύων,
Τρωσὶ κακὰ φρονέων· οἱ δὲ ἰαχῇ τε φόβῳ τε
πάσας πλῆσαν ὁδοὺς, ἐπεὶ ἂρ τμάγεν· ὕψι δ' ἄελλα
σκίδναθ' ὑπὸ νεφέων, ταν́υοντο δὲ μώνυχες ἵπποι
ἄψορρον προτὶ ἄστυ νεῶν ἄπο καὶ κλισιάων.
Πάτροκλος δ' ᾗ πλεῖστον ὀρινόμενον ἴδε λαὸν,
τῇ ῥ' ἔχ' ὁμοκλήσας· ὑπὸ δ' ἄξοσι φῶτες ἔπιπτον
πρηνέες ἐξ ὀχέων, δίφροι δ' ἀνεκυμβαλίαζον.
ἀντικρὺ δ' ἄρα τάφρον ὑπέρθορον ὠκέες ἵπποι
ἄμβροτοι, οὓς Πηλῆϊ θεοὶ δόσαν ἀγλαὰ δῶρα,
πρόσσω ἰέμενοι· ἐπὶ δ' Ἕκτορι κέκλετο θυμός.
ἵετο γὰρ βαλέειν· τὸν δ' ἔκφερον ὠκέες ἵπποι.
ὡς δ' ὑπὸ λαίλαπι πᾶσα κελαινὴ βέβριθε χθὼν
ἤματ' ὀπωρινῷ, ὅτε λαβρότατον χέει ὕδωρ
Ζεὺς, ὅτε δή ῥ' ἀνδρεσσι κοτεσσάμενος χαλεπήνῃ,
οἳ βίῃ εἰν ἀγορῇ σκολιὰς κρίνωσι θέμιστας,
ἐκ δὲ δίκην ἐλάσωσι, θεῶν ὄπιν οὐκ ἀλέγοντες·
τῶν δέ τε πάντες μὲν ποταμοὶ πλήθουσι ῥέοντες,
πολλὰς δὲ κλιτῦς τόρ' ἀμοτμήγουσι χαράδραι,
ἐς δ' ἅλα πορφυρέην μεγάλα στενάχουσι ῥέουσαι
ἐξ ὀρέων ἐπὶ κὰρ, μινύθει δέ τε ἔργ' ἀνθρώπων·
ὣς ἵπποι Τρωαὶ μεγάλα στενάχοντο θέουσαι.

(*b.*) Give the meaning of the following words, and where requisite, the derivation or component parts :—ἀμαρτῇ : περιδέξιος : ἀψόρροος : προαλής : ἔναυλος : ἰλύς : ἀμβολάδην : ῥινοτόρ : κυνόμυια : καρχάλεος : εὖνις : καμμονίη. *Appendix E.* Sessional Examinations.

2. Translate the following :—

ÆSCHYLUS—*Prometheus Vinctus.*

(*a.*) λέξω δὲ, μέμψιν οὕτιν' ἀνθρώποις ἔχων,
ἀλλ' ὧν δέδωκ' εὔνοιαν ἐξηγούμενος·
οἳ πρῶτα μὲν βλέποντες ἔβλεπον μάτην,
κλύοντες οὐκ ἤκουον, ἀλλ' ὀνειράτων
ἀλίγκιοι μορφαῖσι τὸν μακρὸν χρόνον
ἔφυρον εἰκῇ πάντα, κοὔτε πλινθυφεῖς
δόμους προσείλους ἦσαν, οὐ ξυλουργίαν·
κατώρυχες δ' ἔναιον ὥστ' ἀήσυροι
μύρμηκες ἄντρων ἐν μυχοῖς ἀνηλίοις.
ἦν δ' οὐδὲν αὐτοῖς οὔτε χείματος τέκμαρ
οὔτ' ἀνθεμώδους ἦρος οὔτε καρπίμου
θέρους βέβαιον, ἀλλ' ἄτερ γνώμης τὸ πᾶν
ἔπρασσον, ἕς τε δή σφιν ἀντολὰς ἐγὼ
ἄστρων ἔδειξα τάς τε δυσκρίτους δύσεις.
καὶ μὴν ἀριθμὸν, ἔξοχον σοφισμάτων,
ἐξηῦρον αὐτοῖς, γραμμάτων τε συνθέσεις,
μνήμην θ' ἁπάντων μουσομήτορ' ἐργάτιν.
κἄζευξα πρῶτος ἐν ζυγοῖσι κνώδαλα
ζεύγλαισι δουλεύοντα· σώμασίν θ' ὅπως
θνητοῖς μεγίστων διάδοχοι μοχθημάτων
γένοινθ', ὑφ' ἅρματ' ἤγαγον φιλήνιους
ἵππους, ἄγαλμα τῆς ὑπερπλούτου χλιδῆς.
θαλασσόπλαγκτα δ' οὔτις ἄλλος ἀντ' ἐμοῦ
λινόπτερ' ἡῦρε ναυτίλων ὀχήματα.
τοιαῦτα μηχανήματ' ἐξευρὼν τάλας
βροτοῖσιν αὐτὸς οὐκ ἔχω σόφισμ' ὅτῳ
τῆς νῦν παρούσης πημονῆς ἀπαλλαγῶ.—(445–471.)

(*b.*) τοιοῖσδε πεισθεὶς Δοξίου μαντεύμασιν
ἐξήλασέν με κἀπέκλῃσε δωμάτων
ἄκουσαν ἄκων· ἀλλ' ἐπηνάγκαζέ νιν
Διὸς χαλινὸς πρὸς βίαν πράσσειν τάδε.
εὐθὺς δὲ μορφὴ καὶ φρένες διάστροφοι
ἦσαν, κεραστὶς δ', ὡς ὁρᾷς, ὀξυστόμῳ
μύωπι χρισθεῖσ' ἐμμανεῖ σκιρτήματι
ᾔσσον πρὸς εὔποτόν τε Κερχνείας ῥέος
ἀκτήν τε Λέρνης· βουκόλος δὲ γηγενὴς
ἄκρατος ὀργὴν Ἄργος ὠμάρτει, πυκνοῖς
ὄσσοις δεδορκὼς τοὺς ἐμοὺς κατὰ στίβους.
ἀπροσδόκητος δ' αὐτὸν ἀφνίδιος μόρος
τοῦ ζῆν ἀπεστέρησεν. οἰστροπλὴξ δ' ἐγὼ
μάστιγι θείᾳ γῆν πρὸ γῆς ἐλαύνομαι.—(669–682.)

Appendix E.

Sessional Examinations.

3. Translate the following :—

EURIPIDES—*Phœnissæ*, 1396–1424.

κἀν τῷδε μόχθῳ γυμνὸν ὦμον εἰσιδὼν
ὁ πρόσθε τρωθεὶς στέρνα Πολυνείκους βίᾳ
διῆκε λόγχην, κἀπέδωκεν ἡδονὰς
Κάδμου πολίταις, ἀπὸ δ' ἔθραυσ' ἄκρον δόρυ.
εἰς δ' ἄπορον ἥκων δορὸς ἐπὶ σκέλος πάλιν
χωρεῖ, λαβὼν δ' ἀφῆκε μάρμαρον πέτρον
μέσον τ' ἄκοντ' ἔθραυσεν· ἐξ ἴσου δ' Ἄρης
ἦν, κάμακος ἀμφοῖν χεῖρ' ἀπεστερημένοιν.
ἔνθεν δὲ κώπας ἁρπάσαντε φασγάνων
ἐς ταὐτὸν ἦκον, συμβαλόντε δ' ἀσπίδας
πολὺν ταραγμὸν ἀμφιβάντ' εἶχον μάχης.
καὶ πως νοήσας Ἐτεοκλῆς τὸ Θεσσαλὸν
εἰσήγαγεν σόφισμ' ὁμιλίᾳ χθονός.
ἐξαλλαγεὶς γὰρ τοῦ παρεστῶτος πόνου,
λαιὸν μὲν εἰς τοὔπισθεν ἀναφέρει πόδα,
πρόσω τὰ κοῖλα γαστρὸς εὐλαβούμενος·
προβὰς δὲ κῶλον δεξιὸν δι' ὀμφαλοῦ
καθῆκεν ἔγχος σφονδύλοις τ' ἐνήρμοσεν.
ὁμοῦ δὲ κάμψας πλευρὰ καὶ νηδὺν τάλας
σὺν αἱματηραῖς σταγόσι Πολυνείκης πίτνει.
ὁ δ' ὡς κρατῶν δὴ καὶ νενικηκὼς μάχῃ,
ξίφος δικὼν ἐς γαῖαν ἐσκύλευέ νιν,
τὸν νοῦν πρὸς αὐτὸν οὐκ ἔχων, ἐκεῖσε δέ.
ὃ καί νιν ἔσφηλ'· ἔτι γὰρ ἐμπνέων βραχύ,
σώζων σίδηρον ἐν λυγρῷ πεσήματι,
μόλις μέν, ἐξέτεινε δ' εἰς ἦπαρ ξίφος
Ἐτεοκλέους ὁ πρόσθε Πολυνείκης πεσών.
γαῖαν δ' ὀδὰξ ἑλόντες ἀλλήλοιν πέλας
πίπτουσιν ἄμφω κοὐ διώρισαν κράτος.

4. Translate the following :—

SOPHOCLES—*Œdipus Rex*, 726–756.

OI. *οἷόν μ' ἀκούσαντ' ἀρτίως ἔχει, γύναι,*
ψυχῆς πλάνημα κἀνακίνησις φρενῶν.
IO. *ποίας μερίμνης τοῦθ' ὑποστραφεὶς λέγεις ;*
OI. *ἔδοξ' ἀκοῦσαι σοῦ τόδ', ὡς ὁ Λάϊος*
κατασφαγείη πρὸς τριπλαῖς ἁμαξιτοῖς.
IO. *ηὐδᾶτο γὰρ ταῦτ' οὐδέ πω λήξαντ' ἔχει.*
OI. *καὶ ποῦ' σθ' ὁ χῶρος οὗτος οὗ τόδ' ἦν πάθος ;*
IO. *Φωκὶς μὲν ἡ γῆ κλῄζεται, σχιστη δ' ὁδὸς*
ἐς ταὐτὸ Δελφῶν κἀπὸ Δαυλίας ἄγει.
OI. *καὶ τίς χρόνος τοῖσδ' ἐστὶν οὐξεληλυθώς ;*
IO. *σχεδόν τι πρόσθεν ἢ σὺ τῆσδ' ἔχων χθονὸς*
ἀρχὴν ἐφαίνου τοῦτ' ἐκηρύχθη πόλει.

ΟΙ. ὦ Ζεῦ, τί μου δρᾶσαι βεβούλευσαι πέρι ;
ΙΟ. τί δ' ἐστί σοι τοῦτ', Οἰδίπους, ἐνθύμιον ;
ΟΙ. μήπω μ' ἐρώτα· τὸν δὲ Λάϊον φύσιν
τίν' εἶχε φράζε, τίνα δ' ἀκμὴν ἥβης ἔχων.
ΙΟ. μέγας, χνοάζων ἄρτι λευκανθὲς κάρα,
μορφῆς δὲ τῆς σῆς οὐκ ἀπεστάτει πολύ.
ΟΙ. οἴμοι τάλας· ἔοικ' ἐμαυτὸν εἰς ἀρὰς
δεινὰς προβάλλων ἀρτίως οὐκ εἰδέναι.
ΙΟ. πῶς φῄς ; ὀκνῶ τοι πρὸς σ' ἀποσκοποῦσ', ἄναξ.
ΟΙ. δεινῶς ἀθυμῶ μὴ βλέπων ὁ μάντις ᾖ.
δείξεις δὲ μᾶλλον, ἢν ἓν ἐξείπῃς ἔτι.
ΙΟ. καὶ μὴν ὀκνῶ μὲν, ἂν δ' ἔρῃ μαθοῦσ' ἐρῶ.
ΟΙ. πότερον ἐχώρει βαιὸς, ἢ πολλοὺς ἔχων
ἄνδρας λοχίτας, οἵ' ἀνὴρ ἀρχηγέτης ;
ΙΟ. πέντ' ἦσαν οἱ ξύμπαντες, ἐν δ' αὐτοῖσιν ἦν
κῆρυξ· ἀπῆγε δ' ἅρμα Λάϊον μία.
ΟΙ. αἰαῖ, τάδ' ἤδη διαφανῆ. τίς ἦν ποτὲ
ὁ τούσδε λέξας τοὺς λόγους ὑμῖν, γύναι ;
ΙΟ. οἰκεύς τις, ὅσπερ ἵκετ' ἐκσωθεὶς μόνος.

Second Year—Greek.

Honors.—*Examiner, Professor D'Arcy Thompson*, M.A.

1. Translate the following passages :—

Euripides—*Hippolytus*.

(α.) ἡλιβάτοις ὑπὸ κευθμῶσι γενοίμαν, στρ.
ἵνα με πτεροῦσσαν ὄρνιν
θεὸς εἰνὶ ποταναῖς ἀγέλαις θείη.
ἀρθεὶην δ' ἐπὶ πόντιον
κῦμα τᾶς Ἀδριηνᾶς
ἀκτᾶς Ἠριδανοῦ θ' ὕδωρ·
ἔνθα πορφύρεον σταλάσσουσ'
εἰς οἶδμα πατρὸς τάλαιναι
κόραι Φαέθοντος οἴκτῳ δακρύων
τὰς ἠλεκτροφαεῖς αὐγάς.
Ἐσπερίδων δ' ἐπὶ μηλόσπορον ἀκτὰν ἀντ.
ἀνύσαιμι τᾶν ἀοιδῶν,
ἵν' ὁ ποντομέδων πορφυρέας λίμνας
ναύταις οὐκέθ' ὁδὸν νέμει,
σεμνὸν τέρμονα ναίων
οὐρανοῦ, τὸν Ἄτλας ἔχει,
κρῆναί τ' ἀμβρόσιαι χέονται
Ζηνὸς μελάθρων παρὰ κοίταις,
ἵν' ὀλβιόδωρος αὔξει ζαθέα
χθὼν εὐδαιμονίαν θεοῖς.—(732–751.)

Appendix E.

Sessional Examinations.

(*b.*) ΘΗ. ὦ πόλλ' ἁμαρτάνοντες ἄνθρωποι μάτην,
τί δὴ τέχνας μὲν μυρίας διδάσκετε
καὶ πάντα μηχανᾶσθε κἀξευρίσκετε,
ἓν δ' οὐκ ἐπίστασθ' οὐδ' ἐθηράσασθέ πω,
φρονεῖν διδάσκειν οἷσιν οὐκ ἔνεστι νοῦς ;

ΙΠ. δεινὸν σοφιστὴν εἶπας, ὅστις εὖ φρονεῖν
τοὺς μὴ φρονοῦντας δυνατός ἐστ' ἀναγκάσαι.
ἀλλ' οὐ γὰρ ἐν δέοντι χεπτουργεῖς, πάτερ,
δέδοικα μή σου γλῶσσ' ὑπερβάλῃ κακοῖς.

ΘΗ. φεῦ, χρῆν βροτοῖσι τῶν φίλων τεκμήριον
σαφές τι κεῖσθαι καὶ διάγνωσιν φρενῶν,
ὅστις τ' ἀληθὴς ἐστιν ὅς τε μὴ φίλος·
δισσάς τε φωνὰς πάντας ἀνθρώπους ἔχειν,
τὴν μὲν δικαίαν, τὴν δ' ὅπως ἐτύγχανεν,
ὡς ἡ φρονοῦσα τἄδικ' ἐξηλέγχετο
πρὸς τῆς δικαίας, κοὐκ ἂν ἠπατώμεθα.—(916–931.)

(*c.*) ἡμεῖς μὲν ἀκτῆς κυμοδέγμονος πέλας
ψήκτραισιν ἵππων ἐκτενίζομεν τρίχας
κλαίοντες· ἦλθε γάρ τις ἄγγελος λέγων
ὡς οὐκέτ' ἐν γῇ τῇδ' ἀναστρέψοι πόδα
Ἱππόλυτος, ἐκ σοῦ τλήμονας φυγὰς ἔχων.
ὁ δ' ἦλθε ταὐτὸν δακρύων φέρων μέλος
ἡμῖν ἐπ' ἀκταῖς· μυρία δ' ὀπισθόπους
φίλων ἅμ' ἕστειχ' ἡλίκων ὁμήγυρις.
χρόνῳ δὲ δήπου' εἶπ' ἀπαλλαχθεὶς γόων·
τί ταῦτ' ἀλύω ; πειστέον πατρὸς λόγοις.
ἐντυναθ' ἵππους ἅρμασι ζυγηφόρους,
δμῶες· πόλις γὰρ οὐκέτ' ἔστιν ἥδε μοι.
τοὐνθένδε μέντοι πᾶς ἀνὴρ ἠπείγετο,
καὶ θᾶσσον ἢ λέγοι τις ἐξηρτυμένας
πώλους παρ' αὐτὸν δεσπότην ἐστήσαμεν.
μάρπτει δὲ χερσὶν ἡνίας ἀπ' ἄντυγος,
αὐταῖσιν ἀρβύλαισιν ἁρμόσας πόδας.
καὶ πρῶτα μὲν θεοῖς εἶπ' ἀναπτύξας χέρας·
Ζεῦ, μηκέτ' εἴην, εἰ κακὸς πέφυκ' ἀνήρ·
αἴσθοιτο δ' ἡμᾶς ὡς ἀτιμάζει πατὴρ
ἤτοι θανόντας ἢ φάος δεδορκότας.—(1173–1193.)

2. Translate the following passages :—

HERODOTUS, Book III.

(*a.*) ἔπειὶ ὦν τὴν πίστιν τοῖσι ἀγγέλοισι τοῖσι παρὰ Καμβύσεω ἀπιγμένοισι ἐποιήσατο ὁ Ἀράβιος, ἐμηχανᾶτο τοιάδε· ἀσκοὺς καμήλων πλήσας ὕδατος ἐπέσαξε ἐπὶ τὰς ζωὰς τῶν καμήλων πάσας, τοῦτο δὲ ποιήσας ἤλασε ἐς τὴν ἄνυδρον καὶ ὑπέμενε ἐνθαῦτα τὸν Καμβύσεω στρατόν. οὗτος μὲν ὁ πιθανώτερος τῶν λόγων εἴρηται, δεῖ δὲ καὶ τὸν ἧσσον πιθανὸν, ἐπεί γε δὴ λέγεται, ῥηθῆναι. ποταμός ἐστι μέγας ἐν τῇ Ἀραβίῃ, τῷ οὔνομα Κόρυς, ἐκδιδοῖ δὲ οὗτος ἐς τὴν Ἐρυθρὴν καλεομένην θάλασσαν. ἀπὸ τούτου δὴ ὦν τοῦ ποταμοῦ

λέγεται τὸν βασιλέα τῶν Ἀραβίων ῥαψάμενον τῶν ὠμοβοέων καὶ τῶν ἄλλων δερμάτων ὀχετὸν μήκει ἐξικνεύμενον ἐς τὴν ἄνυδρον, ἀγαγεῖν διὰ δὴ τούτου τὸ ὕδωρ, ἐν δὲ τῇ ἀνύδρῳ μεγάλας δεξαμενὰς ὀρύξασθαι, ἵνα δεκόμεναι τὸ ὕδωρ σώζωσι. ὁδὸς δ' ἐστὶ δυώδεκα ἡμερέων ἀπὸ τοῦ ποταμοῦ ἐς ταύτην τὴν ἄνυδρον. ἄγειν δέ μιν διὰ ὀχετῶν τριῶν ἐς τριξὰ χωρία.—(Chap. 9.)

(*b.*) Καμβύσης δὲ ἐκ Μέμφιος ἀπίκετο ἐς Σάϊν πόλιν βουλόμενος ποιῆσαι τὰ δὴ καὶ ἐποίησε. ἐπεί τε γὰρ ἐσῆλθε ἐς τὰ τοῦ Ἀμάσιος οἰκία, αὐτίκα ἐκέλευε ἐκ τῆς ταφῆς τὸν Ἀμάσιος νέκυν ἐκφέρειν ἔξω, ὡς δὲ ταῦτά οἱ ἐπιτελέα ἐγένετο, μαστιγοῦν ἐκέλευε καὶ τὰς τρίχας ἀποτίλλειν καὶ κεντροῦν τε καὶ τἆλλα πάντα λυμαίνεσθαι. ἐπεί τε δὲ καὶ ταῦτα ἔκαμον ποιεῦντες (ὁ γὰρ δὴ νεκρὸς ἄτε τεταριχευμένος ἀντεῖχέ τε καὶ οὐδὲν διεχέετο), ἐκέλευσέ μιν ὁ Καμβύσης κατακαῦσαι, ἐντελλόμενος οὐκ ὅσια. Πέρσαι γὰρ θεὸν νομίζουσι εἶναι τὸ πῦρ. τὸ ὦν κατακαίειν τοὺς νεκροὺς οὐδαμῶς ἐν νόμῳ οὐδετέροισί ἐστι, Πέρσῃσι μὲν δι' ὅπερ εἴρηται, θεῷ οὐ δίκαιον εἶναι λέγοντες νέμειν νεκρὸν ἀνθρώπου, Αἰγυπτίοισι δὲ νενόμισται τὸ πῦρ θηρίον εἶναι ἔμψυχον, πάντα δὲ αὐτὸ κατεσθίειν τά περ ἂν λάβῃ, πλησθὲν δὲ αὐτὸ τῆς βορῆς συναποθνήσκειν τῷ κατεσθιομένῳ. οὐκ ὦν θηρίοισι νόμος οὐδαμῶς σφί ἐστι τὸν νέκυν διδόναι, καὶ διὰ ταῦτα ταριχεύουσι, ἵνα μὴ κείμενος ὑπὸ εὐλέων καταβρωθῇ. οὕτω δὴ οὐδετέροισι νομιζόμενα ἐνετέλλετο ποιέειν ὁ Καμβύσης. ὡς μέντοι Αἰγύπτιοι λέγουσι, οὐκ Ἄμασις ἦν ὁ ταῦτα παθὼν, ἀλλὰ ἄλλος τῶν τις Αἰγυπτίων ἔχων τὴν αὐτὴν ἡλικίην Ἀμάσι, τῷ λυμαινόμενοι Πέρσαι ἐδόκεον Ἀμάσι λυμαίνεσθαι. λέγουσι γὰρ, ὡς πυθόμενος ἐκ μαντηίου ὁ Ἄμασις τὰ περὶ ἑωυτὸν ἀποθανόντα μέλλοι γίνεσθαι, οὕτω δὴ ἀκεόμενος τὰ ἐπιφερόμενα τὸν μὲν ἄνθρωπον τοῦτον τὸν μαστιγωθέντα ἀποθανόντα ἔθαψε ἐπὶ τῇσι θύρῃσι ἐντὸς τῆς ἑωυτοῦ θήκης, ἑωυτὸν δὲ ἐνετείλατο τῷ παιδὶ ἐν μυχῷ τῆς θήκης ὡς μάλιστα θεῖναι. αἱ μέν νυν ἐκ τοῦ Ἀμάσιος ἐντολαὶ αὗται αἱ ἐς τὴν ταφήν τε καὶ τὸν ἄνθρωπον ἔχουσαι οὔ μοι δοκέουσι ἀρχὴν γενέσθαι, ἄλλως δ' αὐτὰ Αἰγύπτιοι σεμνοῦν.—(Chap. 16.)

3. Translate the following passages:—

HOMER—*Odyssey.*

(*a.*) ἔνθα δὲ τόξον κεῖτο παλίντονον ἠδὲ φαρέτρη
ἰοδόκος, πολλοὶ δ' ἔνεσαν στονόεντες ὀϊστοί,
δῶρα, τά οἱ ξεῖνος Λακεδαίμονι δῶκε τυχήσας
Ἶφιτος Εὐρυτίδης, ἐπιείκελος ἀθανάτοισιν.
τὼ δ' ἐν Μεσσήνῃ ξυμβλήτην ἀλλήλοιιν,
οἴκῳ ἐν Ὀρσιλόχοιο δαΐφρονος. ἦτοι Ὀδυσσεύς
ἦλθε μετὰ χρεῖος, τό ῥά οἱ πᾶς δῆμος ὄφελλεν·
μῆλα γὰρ ἐξ Ἰθάκης Μεσσήνιοι ἄνδρες ἄειραν
νηυσὶ πολυκλήϊσι τριηκόσι' ἠδὲ νομῆας.
τῶν ἕνεκ' ἐξεσίην πολλὴν ὁδὸν ἦλθεν Ὀδυσσεύς
παιδνὸς ἐών· πρὸ γὰρ ἦκε πατὴρ ἄλλοι τε γέροντες.
Ἶφιτος αὖθ' ἵππους διζήμενος, αἵ οἱ ὄλοντο,
δώδεκα θήλειαι, ὑπὸ δ' ἡμίονοι ταλαεργοί·
αἳ δή οἱ καὶ ἔπειτα φόνος καὶ μοῖρα γένοντο,
ἐπεὶ δὴ Διὸς υἱὸν ἀφίκετο καρτερόθυμον,
φῶθ' Ἡρακλῆα, μεγάλων ἐπίστορα ἔργων,

Appendix E.

Sessional Examinations.

ὅς μιν ξεῖνον ἐόντα κατέκτανεν ᾧ ἐνὶ οἴκῳ,
σχέτλιος, οὐδὲ θεῶν ὄπιν ᾐδέσατ', οὐδὲ τράπεζαν,
τὴν δή οἱ παρέθηκεν· ἔπειτα δὲ πέφνε καὶ αὐτόν,
ἵππους δ' αὐτὸς ἔχε κρατερώνυχας ἐν μεγάροισιν.
τὰς ἐρέων Ὀδυσῆϊ συνήντετο, δῶκε δὲ τόξον,
τὸ πρὶν μέν ῥ' ἐφόρει μέγας Εὔρυτος, αὐτὰρ ὁ παιδὶ
κάλλιπ' ἀποθνήσκων ἐν δώμασιν ὑψηλοῖσιν.—(XXI., 11–33.)

(*b.*) οὐ μέν τοι θυμὸς κεχαρήσεται· οὐδὲ γὰρ αὐτός
χαίρω, ἐπεὶ μάλα πολλὰ βροτῶν ἐπὶ ἄστε' ἄνωγεν
ἐλθεῖν, ἐν χείρεσσιν ἔχοντ' εὐῆρες ἐρετμόν,
εἰς ὅ κε τοὺς ἀφίκωμαι, οἳ οὐκ ἴσασι θάλασσαν
ἀνέρες, οὐδὲ θ' ἅλεσσι μεμιγμένον εἶδαρ ἔδουσιν·
οὐδ' ἄρα τοί γ' ἴσασι νέας φοινικοπαρῄους,
οὐδ' εὐήρε' ἐρετμά, τά τε πτερὰ νηυσὶ πέλονται.
σῆμα δέ μοι τόδ' ἔειπεν ἀριφραδές, οὐδέ σε κεύσω.
ὁππότε κεν δή μοι ξυμβλήμενος ἄλλος ὁδίτης
φήῃ ἀθηρηλοιγὸν ἔχειν ἀνὰ φαιδίμῳ ὤμῳ,
καὶ τότε μ' ἐν γαίῃ πήξαντ' ἐκέλευεν ἐρετμόν,
ἔρξανθ' ἱερὰ καλὰ Ποσειδάωνι ἄνακτι,
ἀρνειὸν ταῦρόν τε συῶν τ' ἐπιβήτορα κάπρον,
οἴκαδ' ἀποστείχειν, ἔρδειν θ' ἱερὰς ἑκατόμβας
ἀθανάτοισι θεοῖσι, τοὶ οὐρανὸν εὐρὺν ἔχουσιν,
πᾶσι μάλ' ἑξείης. θάνατος δέ μοι ἐξ ἁλὸς αὐτῷ
ἀβληχρὸς μάλα τοῖος ἐλεύσεται, ὅς κέ με πέφνῃ
γήραι ὕπο λιπαρῷ ἀρημένον· ἀμφὶ δὲ λαοί
ὄλβιοι ἔσσονται. τὰ δέ μοι φάτο πάντα τελεῖσθαι.
τὸν δ' αὖτε προσέειπε περίφρων Πηνελόπεια·
εἰ μὲν δὴ γῆράς γε θεοὶ τελέουσιν ἄρειον,
ἐλπωρή τοι ἔπειτα κακῶν ὑπάλυξιν ἔσεσθαι.
(XXIII., 266–287.)

DEMOSTHENES—*Philippics.*

1. Translate the following passage:—

Τί οὖν αἴτιον τουτωνί; οὐ γὰρ ἄνευ λόγου καὶ δικαίας αἰτίας οὕτε τόθ' οὕτως εἶχον ἑτοίμως πρὸς ἐλευθερίαν οἱ Ἕλληνες οὔτε νῦν πρὸς τὸ δουλεύειν. ἦν τι τότ', ἦν, ὦ ἄνδρες Ἀθηναῖοι, ἐν ταῖς τῶν πολλῶν διανοίαις, ὃ νῦν οὐκ ἔστιν, ὃ καὶ τοῦ Περσῶν ἐκράτησε πλούτου καὶ ἐλευθέραν ἦγε τὴν Ἑλλάδα καὶ οὔτε ναυμαχίας οὔτε πεζῆς μάχης οὐδεμιᾶς ἡττᾶτο, νῦν δ' ἀπολωλὸς ἅπαντα λελύμανται καὶ ἄνω καὶ κάτω πεποίηκε τὰ τῶν Ἑλλήνων πράγματα. τί οὖν ἦν τοῦτο; οὐδὲν ποικίλον οὐδὲ σοφόν, ἀλλ' ὅτι τοὺς παρὰ τῶν ἄρχειν ἀεὶ βουλομένων ἢ διαφθείρειν τὴν Ἑλλάδα χρήματα λαμβάνοντας ἅπαντες ἐμίσουν, καὶ χαλεπώτατον ἦν τὸ δωροδοκοῦντα ἐλεγχθῆναι, καὶ τιμωρίᾳ μεγίστῃ τοῦτον ἐκόλαζον, καὶ παραίτησις οὐδεμία ἦν οὐδὲ συγγνώμη. τὸν οὖν καιρὸν ἑκάστου τῶν πραγμάτων, ὃν ἡ τύχη καὶ τοῖς ἀμελοῦσι κατὰ τῶν προσεχόντων καὶ τοῖς μηδὲν ἐθέλουσι ποιεῖν κατὰ τῶν πάντα ἃ προσήκει πραττόντων πολλάκις παρασκευάζει, οὐκ ἦν πρίασθαι παρὰ τῶν λεγόντων

οὐδὲ τῶν στρατηγούντων, οὐδὲ τὴν πρὸς ἀλλήλους ὁμόνοιαν, οὐδὲ τὴν πρὸς τοὺς τυράννους καὶ τοὺς βαρβάρους ἀπιστίαν, οὐδ' ὅλως τοιοῦτον οὐδέν. νῦν δ' ἅπανθ' ὥσπερ ἐξ ἀγορᾶς ἐκπέπραται ταῦτα, ἀντεισῆκται δὲ ἀντὶ τούτων, ὑφ' ὧν ἀπόλωλε καὶ νενόσηκεν ἡ Ἑλλάς. ταῦτα δ' ἐστὶ τί; ζῆλος, εἴ τις εἴληφέ τι· γέλως, ἂν ὁμολογῇ· συγγνώμη τοῖς ἐλεγχομένοις· μῖσος, ἂν τούτοις τις ἐπιτιμᾷ· τἄλλα πάνθ' ὅσα ἐκ τοῦ δωροδοκεῖν ἤρτηται. ἐπεὶ τριήρεις γε καὶ σωμάτων πλῆθος καὶ χρημάτων πρόσοδοι καὶ τῆς ἄλλης κατασκευῆς ἀφθονία, καὶ τἄλλα, οἷς ἄν τις ἰσχύειν τὰς πόλεις κρίνοι, νῦν ἅπασι καὶ πλείω καὶ μείζω ἐστὶ τῶν τότε πολλῷ. ἀλλὰ ταῦτα πάντα ἄχρηστα, ἄπρακτα, ἀνόνητα ὑπὸ τῶν πωλούντων γίγνεται.

2. Translate the following words, terms, and expressions, adding annotation where you think it requisite for full elucidation :—

(*a.*) τὰ κατερρᾳθυμημένα πάλιν ἀναλήψεσθε.
(*b.*) κύκλῳ πανταχῇ ἡμᾶς περιστοιχίζεται.
(*c.*) ἐπιστολίμαιοι δυνάμεις.
(*d.*) ὥσπερ οἱ πλάττοντες τοὺς πηλίνους.
(*e.*) πόρου ἀπόδειξις.
(*f.*) τῶν χρημάτων αὐτοὶ ταμίαι καὶ πορισταὶ γίγνεσθε.
(*g.*) χορηγὸς ἢ Γυμνασίαρχος.
(*h.*) ἀντιδόσεις ποιούμεθα.
(*i.*) ἀκολουθεῖν τοῖς πράγμασιν.
(*j.*) ὁ πληγεὶς ἀεὶ τῆς πληγῆς ἔχεται.
(*k.*) παντάπασιν ἑαυτῶν ἀπεγνώκατε.
(*l.*) τοὺς πεπρακότας ἑαυτοὺς ἐκείνῳ φανερῶς ἀποτυμπανίσατε.
(*m.*) ποῦ συντρίβεται τὸ πρᾶγμα;

First and Second Years—Greek.

Honors.—*Examiner, Professor D'Arcy Thompson,* M.A.

Render into Greek the following :—

Consider this also, Athenians, that you have waged many wars both against democracies and oligarchies. This, indeed, you well know; but perhaps not one of you reflects for what objects you have gone to war against either. What, then, were your objects?

When opposed to democracies, it was either on the ground of private complaints which you could not arrange *by-diplomacy,*(1) or *on-territorial-or-boundary-questions,*(2) or from rivalry, or for the primacy of Greece. When opposed to oligarchies, it has been for none of these reasons, but in defence of your *political-principles*(3) and your freedom; so that I should not scruple to declare my opinion that it were more for your interests that all the Greeks who live under democracies should be at war with you, than that those governed by oligarchies should be friendly to you. For I imagine you could readily have made peace with freemen whenever you wished, while I believe not even friendship to be safe with the subjects of oligarchy; for it is impossible that oligarchs can be well disposed to a commonalty, or men ambitious of rule to men *determined* (4) to live on terms of equality.

(1) δημοσίᾳ. (2) Say: *concerning a part of land or bounds.* (3) πολιτεία. (4) γρημένοι.

Appendix E

Sessional Examinations.

2. Render into Greek the following:—

The camp of the besiegers, in the meanwhile, was also greatly wasted by sickness and the sword. Many, desponding under perils and fatigues that seemed to have no end, would even at this late hour have abandoned the siege; and they earnestly solicited the queen's presence in the camp, in the hope that she would herself countenance this measure, on witnessing their sufferings. Others, and by far the greater part, anxiously desired the queen's visit as likely to quicken the operations of the siege, and bring it to a favourable issue. There seemed to be a virtue in her presence, which, on some account or other, made it earnestly desired by all.

Third Year—Greek.

Honors.—*Examiner, Professor D'Arcy Thompson*, M.A.

Render into Greek prose the following passages:—

(*a.*) The feeling of patriotism was almost wholly extinguished. All the old maxims of foreign policy were changed. Physical boundaries were superseded by moral boundaries. The conflict was not, as in ordinary times, between state and state, but between two omnipresent factions, each of which was in some places dominant and in other places oppressed, whilst both parties openly or covertly carried on their strife in the bosom of every society. No man asked whether another belonged to the same country with himself, but whether he belonged to the same sect. Party spirit seemed to justify and consecrate acts which in any other times would have been considered as the foulest of treasons.

(*b.*) Xenophon and the rearguard at first imagined that the natives had commenced attack in front as well as in the rear, and that the vanguard was engaged in battle. But every moment the shout became louder as fresh men came to the summit and gave vent to their feelings, so that Xenophon grew anxious and galloped up to the van with his handful of cavalry to see what had happened. As he approached the voice of the overjoyed crowd was heard distinctly crying out: Thalatta, Thalatta (the sea, the sea), and congratulating each other in ecstasy. The main body, the rearguard, the baggage soldiers driving up their horses and cattle before them, became all excited by the sound and hurried up breathless to the summit. The whole army, officers and soldiers, were thus assembled, manifesting their joyous emotions by tears, embraces and outpourings of enthusiastic sympathy. With spontaneous impulse they heaped up stones to decorate the spot by a monument and commemorative trophy; putting on the stones such homely offerings as their means afforded—sticks, hides, and a few of the wicker shields, just taken from the natives. To the guide who had performed his engagement of bringing them in five days within sight of the sea, their gratitude was unbounded.

Note.—Passage (*b*), omitting the last five lines, was set to First Year, Honors, in addition to their other passage.

Examiner, Professor Moffett, LL.D.

English Language and Literature.

1. What was the social and political aspect of England when Chaucer wrote? Name some of his most illustrious contemporaries at home, and abroad.

2. State, with dates, the principal events of his life.
3. Give an estimate of his position in English Literature.
4. Point out his dramatic power, not in vague generalities, but by specific reference.
5. How many Pilgrims were there? Give a full description of any one of them.
6. To what points would you call the attention of a modern reader who should ask how Chaucer is to be read so as to maintain the harmony of his versification?
7. What is the metre of the Prologue?
8. Discuss the scansion of the following lines:—

(*a.*) "And wondurly delyvere, and gret of strengthe;"—
(*b.*) "In love-days couthe he mochel helpe;"—
(*c.*) "That streit was comen from the court of Rome;"—

9. In what respects is the plan of the "Canterbury Tales" an improvement on that of the "Decameron"?
10. What is the latest historical event mentioned in the poem? What is the date of that event?
11. Where are the following places?—

Belmarie, Middleburgh and *Orewelle, Satalie, Palatye, Tramassene, Galice.*

12. Explain the following sentences:—

(*a.*) "His herbergh, and his mone, his lodemenage;"—
(*b.*) "Wel cowde he stele corn, and tollen thries,
And yet he hadde a thombe of gold pardé."
(*c.*) "Algate he wayted so in his acate,
That he was ay biforn and in good state."
(*d.*) "His breed, his ale, was always after oon;
A bettre envyned man was nowhere noon."
(*e.*) "Now draweth cut, er that we forther twynne;"

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13. What was Shakespere's authority for the Play of *Hamlet*?
What is the date of the Play?
When is the hero supposed to have lived?
14. Who is Hamlet's "foil"?
15. Some suppose Shakespere was, at one period of his career, connected with the Law:—How has this notion been supported from this Play?
16. Give the substance of—

(*a.*) The advice of Polonius to Laertes.
(*b.*) The advice of Hamlet to the Players.
(*c.*) Hamlet's great Soliloquy.

17. Annotate the following passages:—

(*a.*) "With windlasses and with assays of bias,
By indirections find directions out."
(*b.*) "The clown shall make those laugh whose lungs are tickle o' the sere."
(*c.*) "And now no soil nor cautel doth besmirch
The virtue of his will."
(*d.*) "Methought I lay
Worse than the mutines in the bilboes."
(*e.*) "This quarry cries on havoc."

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18. It has been remarked that Shakespere's Classical Plays were the last assertion of an age which was passing away.—Explain this.

Appendix E.

Sessional Examinations.

19. Annotate the following passages :—

(*a.*) "If I were Brutus now, and he were Cassius,
He should not humour me."

(*b.*) "But 'tis a common proof
That lowliness is young ambition's ladder,"—

(*c.*) "The genius and the mortal instruments
Are then in council;"—

(*d.*) "Not Erebus himself were dim enough
"To hide thee from prevention."

(*e.*) "Here thy hunters stand
Signed in thy spoil, and crimsoned in thy lethe."

20. "Et tu Brute!"—What are the last words as given by Suetonius?

21. "O ye gods
Render me worthy of this noble wife!"
What calls forth this exclamation?

22. "This is a slight, unmeritable man,
Meet to be sent on errands;"—
On what errand has Lepidus just been sent?

23. "There is a tide in the affairs of men
Which, taken at the flood, leads on to fortune;"—
In what connexion is this said?

24. What touch descriptive of external nature is brought into connexion with the death of Cassius?

Logic.

1. Define Psychology and Logic; and point out their relation.

2. Distinguish Science and Art; and explain the province of Logic as a Science and as an Art.

3. Lay out the departments of Logic in relation to each other.

Under which, and for what reasons, would you place (1) Definition, (2) Opposition, (3) Reduction?

4. Distinguish Singular, Common, Collective, and Abstract Terms. By what process of the mind are Common Terms arrived at?

"Abstraction does not necessarily imply Generalization, though Generalization implies Abstraction."—Explain this.

5. Explain and define the Predicables.

6. Distinguish Definition and Description.

State the Rules of Definition, and apply them to the following instances :—

(*a.*) "Conversion is the changing of terms in a proposition."

(*b.*) "Opposed propositions are those which differ in Quantity and Quality."

(*c.*) "Contradictory Opposition is the Opposition of Contradictories."

(*d.*) "A Conditional consists of two or more Categorical propositions connected with each other."

(*e.*) "A Disjunctive proposition consists of two or more Categoricals connected by *either* and *or*."

7. Distinguish Logical and Physical Division.

State the Rules of the former process, and apply them to the following instances :—

(*a.*) "Discursive thought may be divided into the Term, Judgment, and Syllogism.

(*b.*) "Notions are Concrete, Singular, and Universal."

(*c.*) Propositions are Affirmative, Negative, and Universal.

8. Give the new Propositional forms developed by the Quantification of the Predicate, with an estimate of their value.

9. Distinguish between Mediate and Immediate Inference; and give examples of the latter.

10. Draw the Scheme of Opposition; and explain its use.

11. Explain and exemplify Conversion by Contraposition.
What makes this process necessary?

12. Distinguish between the Mode and the Figure of a Syllogism.
On what principles is the number of the Modes and of the Figures determined?

13. Determine the Mode in each of the following cases:—

(*a.*) When the conclusion is A.
(*b.*) When the Major Premise is O.
(*c.*) When the Minor Premise is O.

14. Which of the following Modes are valid, and in what Figures? State grounds of exclusion for each you reject.

A A O	A I I	E A O	E I I
I A I	I E O	O A O	O E I

15. State grounds for accepting or rejecting the Fourth Figure.

16. Define Conjunctive and Disjunctive Syllogisms; and estimate the validity of the following examples:—

(*a.*) "Crimes will be few if the laws are wise and well administered; but crimes are few: therefore the laws are wise and well administered."
(*b.*) "Logic is either a Science or an Art; it is a Science: therefore it is not an Art.

17. Prove the Rules of the Sorites.

18. Define Induction, and state the axioms on which it proceeds.

19. Distinguish between Inductive and Analogical reasoning, and estimate the cogency of the latter.

20. Explain and exemplify the following Fallacies:—

(*a.*) Illicit Process of Minor; (*b.*) Ambiguous Middle; (*c.*) Fallacies of Composition and Division; (*d.*) Ignoratio Elenchi; (*e.*) Petitio Principii.

Modern History.

1. Draw the character of James I. What was his right to the Crown of England?

2. Give a short account of the Earl of Essex, *or* of Sir Walter Raleigh.

3. Mention the three chief advisers of Charles I.; and give a brief account of the character and fate of each.

4. What are the earliest instances of Impeachment?
What were the grounds of Impeachment in Strafford's case?

5. State the history and the provisions of Glamorgan's Treaty.

6. When, between whom, and with what results, were the battles of the Yellow Ford and Benburb fought?

7. Explain the references in the following extract from a Sonnet of Milton's:—

"While Darwen's stream with blood of Scots imbrued,
And Dunbar field resounds thy praises loud,
And Worcester's laureate wreath."

Appendix E.
Sessional Examinations.

8. Give the date of the passing of Cromwell's Navigation Laws; and state their object and policy.

9. Explain the following terms:—(*a.*) The Convention Parliament; (*b.*) the Cabal; (*c.*) the Triple Alliance; (*d.*) the Clarendon Code; (*e.*) the Secret Treaty of Dover; (*f.*) the Exclusion Bill; (*g.*) Annus Mirabilis.

10. Explain and illustrate the following statement:—"There are few periods of our history more discreditable and more unpleasing to dwell on than the twenty-eight years between the Restoration and the Revolution."

11. Explain accurately the constitutional point at issue on the trial of the Seven Bishops.

12. What is meant by the Declaration of Rights as opposed to the Bill of Rights?

13. Give the dates of the battles, by whom they were fought, and the precise position of the places named:—Malplaquet, Oudenarde, Ramilies, Blenheim.

What were the permanent results of Marlborough's wars?

14. By what right did George I. ascend the throne of England?

15. Give some account of the South Sea Scheme.

16. What were the Scottish Heritable Jurisdictions?

When, and under what circumstances, were they abolished?

17. Mention the principal events in English History which give importance to the decade 1760 to 1770.

18. What wars were terminated by the Treaties of Ryswick, Utrecht, and Versailles?

Mention one chief article in each.

19. . . . . .

"Record that Fox a Briton died!
When Europe crouched to France's yoke,
And Austria bent, and Prussia broke,
And the firm Russian's purpose brave
Was bartered by a timorous slave;
Even then dishonour's peace he spurn'd,"—

Explain this passage, and point out an anachronism. Who was the "timorous slave"?

---

20. Date and describe the battle of Ivry.

21. Give the date and the leading provisions of the Edict of Nantes. In what year was it revoked?

22. Describe briefly the events which led to the siege of La Rochelle in the reign of Louis XIII.

23. How long did the troubles of the *Fronde* last?

Describe the circumstances which led to them, and mention the names of the chief actors.

24. What lasting effects has the first French Revolution produced upon the affairs of Europe?

SENIOR LOGIC.

1. How does it seem to you that the province of Logic is best described?

Quote some of the definitions of the science which eminent authorities have propounded.

2. State precisely what is the meaning of the expression—"Formal Laws of Thought."

3. How do you vindicate the utility of Logic as a study?

4. How does Language serve as an aid to Thought?

Explain the remark:—"Conceptions are the paper currency of Thought."

5. Explain fully the psychological steps involved in the formation of a Concept or Notion.

Are modern Psychologists agreed as to the nature of the result?

6. Distinguish:—

(*a.*) Analytical and Synthetical Judgments;
(*b.*) Definition and Description;
(*c.*) Nominal and Real Definitions.

7. If Definitions are verbal propositions, how can they stand among the principles of a Real science?

8. Distinguish (1) Predicate, Predicable, Predicament; (2) Physical, Logical, Metaphysical Division.

9. Translate the following passages as far as you can into the language of Mill; explaining whether the differences extend deeper than those of phraseology:—

(*a.*) "When from the Concept *man*, equivalent to *rational animal*, I abstract the attribute or determination *rational*, I lessen its internal quantity; but by this diminution of its comprehension I give it a wider extension."

(*b.*) "If we compare the thoughts,—*water*, *iron*, *rusting*,—find them congruent, and connect them into a single thought, thus,—*water rusts iron*—in that case we form a judgment."

10. State briefly what is involved in the questions of—

(*a.*) Modality;
(*b.*) Quantification of the Predicate.

11. Explain what is meant by the "Dictum de Omni et Nullo" being the Law of Syllogism.

By what principles have modern logicians proposed to replace it?

12. State fully Hamilton's division of Syllogisms.

13. Give an example of—

(*a.*) a Complex Constructive Dilemma;
(*b.*) a Destructive Dilemma.

14. "Dilemmatic arguments are more often fallacious than not."—Why is this?

15. State the grounds and estimate the value of reasoning founded on Analogy.

16. State Mill's theory of the Syllogism; and give any criticisms which occur to you.

17. Distinguish between Inductive and Analogical reasoning.

18. What Mathematical processes are sometimes confounded with Induction?

19. What is meant by the Colligation of Facts? Does this process involve Inference or not?

20. Is the Baconian Induction the method by which the important generalizations of science have been reached?

21. What place does Deduction hold in the processes of Physical Science? Illustrate, if you can, by examples.

What are the discoveries which generally change the method of a science from Experimental to Deductive?

22. Distinguish between Direct and Indirect Evidence.

Appendix E. Sessional Examinations.

23. What kind of reasoning does Mill refer to under the title, "*A priori Fallacies*"?

24. Give a brief explanation of the following expressions:—*Traduction; Ultra-total Distribution; Propositio tertii adjacentis; Significate; Ignoratio Elenchi.*

Honors—First Year.

Mathematics.—*Examiner, Professor Allman,* LL.D.

1. Find the locus of a point such that the sum of the squares of its distances from two given points shall be equal to the square of its distance from a third given point.

2. Eliminate θ from the equations—

$$(a+b)\tan(\theta-\phi)=(a-b)\tan(\theta+\phi),$$
$$a\cos 2\phi+b\cos 2\theta=c.$$

3. Prove that if θ, ϕ, ψ be the lengths of arcs of great circles drawn from A, B, C perpendicular to the opposite sides of a spherical triangle,

$$\sin a\sin\theta=\sin b\sin\phi=\sin c\sin\psi=$$
$$\sqrt{(1-\cos^2 a-\cos^2 b-\cos^2 c+2\cos a\cos b\cos c)}.$$

4. If a be the arc which joins the middle points of the sides b, c, of a spherical triangle, prove that—

$$\frac{\cos a}{\cos\frac{a}{2}}=\frac{1+\cos a+\cos b+\cos c}{4\cos\frac{a}{2}\cos\frac{b}{2}\cos\frac{c}{2}}.$$

5. Prove Euler's formulæ for $\sin\theta$ and $\cos\theta$. Deduce hence Gregory's series for $\tan^{-1}x$; and show how it may be used for calculating π.

6. Prove that the surface of a sphere is equal to four times the area of one of its great circles.

7. Solve the equations:—

$x^4+3x^3-7x^2-27x-18=0$, which has two roots of the form $a, -a$;

$x^4-11x^2+18x-8=0$, which has equal roots.

8. Show how to solve an equation the roots of which are in Arithmetical Progression.

Ex. $x^4-10x^3+15x^2+50x-56=0$.

9. Determine the relation between q and r which must be satisfied in order that the equation $x^3-qx+r=0$ may be put into the form $x^4=(x^2+mx+n)^2$; and solve in this manner the equation $8x^3-36x+27=0$.

10. Two vertices of a triangle move on fixed straight lines, and the three sides pass through three fixed points which lie on a straight line; find the locus of the third vertex by the method of co-ordinates.

11. Given the base of a triangle and the difference of the base angles, find the locus of the vertex.

12. Given any two points A and B, and their polars, with respect to a circle whose centre is O: let fall a perpendicular AP from A on the polar of B, and a perpendicular BQ from B on the polar of A; prove that $\frac{OA}{AP}=\frac{OB}{BQ}$.

Honors—Second Year.

Mathematics.—*Examiner, Professor Allman,* LL.D.

1. Prove that if an equation of the second degree be transformed from one pair of axes to any other, the quantities $\frac{a+b-2h\cos\omega}{\sin^2\omega}$ and $\frac{ab-h^2}{\sin^2\omega}$ remain unaltered.

2. Show that the equation of the asymptotes of a hyperbola differs from that of the curve in the constant term only. Apply this principle to find the equation of the asymptotes of the hyperbola given by the general equation.

3. Two tangents to an ellipse cut at right angles; find the locus of their intersection.

An ellipse and hyperbola have the same foci; find the locus of the intersection of two tangents to them at right angles to each other.

4. A focal chord is drawn parallel to the tangent at any point of a parabola; show that the chord is four times the parameter at that point.

5. Prove *the theorem of Leibnitz* for finding the n^{th} differential co-efficient of the product of two functions of x.

If $y=e^{ax}x^r$, prove that—

$$\frac{d^n(e^{ax}x^r)}{dx^n}=\left(\frac{a}{x}\right)^{n-r}\frac{d^r(e^{ax}x^n)}{dx^r}.$$

6. Given $u=m+e\sin u$, expand $\sin u$ in powers of e.

7. A cartesian oval is the locus of a point, P, such that its distances, PM, PM′, from the circumferences of two given circles are to each other in a constant ratio; prove that the tangents to the oval at P, and to the circles at M and M′ meet in the same point.

8. Show that the radius of curvature of the catenary is equal and opposite to the normal.

9. Find the envelope of the lines

$$x\cos 3\theta+y\sin 3\theta=a(\cos 2\theta)^{\frac{3}{2}}$$

where θ is the variable parameter.

10. Explain the meaning of the symbol $\int_a^b\phi(x)dx$, and show that if $\psi(x)$ be the function whose differential co-efficient is $\phi(x)$,

$$\int_a^b\phi(x)dx=\psi(b)-\psi(a).$$

Find the integral of $\sin x$ between the limits a and b *immediately from the definition.*

11. Investigate the conditions under which $\int\sin^m x\cos^n x\,dx$ can be found immediately. When none of these conditions are satisfied, how may the reduction of this integral be effected?

12. Find the following integrals:—

$$\int\frac{dx}{x\sqrt{x^2+1}};\quad \int\frac{x^2dx}{x^4+x^2-2};\quad \int\frac{d\theta}{a+b\cos\theta};\quad \int_0^{\blacksquare}x^2\operatorname{vers}^{-1}\frac{x}{a}\,dx.$$

Appendix E.

Sessional Examinations.

Second Year's Arts.

Mixed Mathematics—Pass.—*Examiner, Professor Curtis,* LL.D.

1. On the base of an isosceles triangle, whose base and altitude are respectively 4 feet and 3 feet, a square is described; find the centre of gravity of the area included by the entire figure.

2. Determine the expression for the pressure on the fulcrum in each of the three kinds of levers.

3. A uniform bar, whose length is 4 feet, and weight 6 lbs., is supported by two vertical props, one at each extremity, a weight of 4 lbs. is attached to it at a distance of 3 feet from one extremity; find the pressure on each prop.

4. A body is let fall from the top of a cliff, whose height is 60 feet; find with what velocity a body must be contemporaneously projected upwards from the base of the cliff in order that the two bodies may meet at the altitude of 11 feet.

5. Find the space described by a heavy body falling from rest in 12 seconds, also that described in the 12th second.

6. A square, each side of which is 4 inches, is sunk in a liquid, whose specific gravity is 1·3, so that the intersection of its diagonals is at the depth of 14 inches; find the total pressure to which it is subjected.

7. Define the centre of pressure of a plane area immersed in a liquid and determine that of a parallelogram, one side of which is situated in the free surface of the liquid.

8. Prove that the image of an object as seen in a plane reflector is equal to the object, and that both are similarly situated with regard to the reflecting surface, but at different sides of it.

9. The absolute indices of refraction being known for two media, how would you determine their relative index of refraction? Prove the law.

10. The model of a lens being given to you how would you determine whether it belonged to the convex or concave class? How is the distinction *mathematically* expressed, and how do the convex and concave lenses differ in their action on a pencil of diverging or converging rays?

Second Year's Arts and Engineering.

Mixed Mathematics—Honors.—*Examiner, Professor Curtis,* LL.D.

1. State the condition, which must exist between a system of forces situated in a plane, and whose directions meet in one point, in order that they should be in equilibrium.

2. State what *further* condition must be fulfilled in order that a system of forces situated in a plane, but whose directions do not meet in one point, should be in equilibrium, and show that, if this condition be not fulfilled, the system will be reducible to two equal forces, whose directions are parallel and opposite, but not *directly* opposed.

3. Find the centre of gravity:—

(*a.*) Of a parabolic area cut off by a straight line.
(*b.*) Of the portion of a solid sphere cut off by a plane.

4. A beam rests on a smooth point, and one extremity presses against

a smooth curve situated in a vertical plane containing the point; find the condition of equilibrium. Solve the problem completely when the curve is:—

(*a.*) An ellipse, whose axis major is vertical, and whose centre coincides with the point.

(*b.*) An ellipse, whose axis minor is vertical, and whose centre coincides with the point.

(*c.*) An ellipse, whose axis major is vertical, and whose focus coincides with the point.

5. Solve the similar problem, when the curve and point are equally rough, the curve being a parabola, whose axis is vertical, and the point its focus.

6. An ellipse being placed with its axis major vertical, prove that the vertical is the line of quickest, or slowest, descent from any assumed point on the axis major to the curve, and determine the limit to the distance of the assumed point from the lowest point on the ellipse in the latter case.

7. Show that in general from a given point, with a given velocity, a body may be projected in either of two determinable directions in order that it may pass through any assumed point, and find the geometrical locus of this point, when these two directions coincide.

8. Deduce the three expressions for *centrifugal force*, and assuming that the Sun attracts the planets with a force varying as the inverse square of the distance, and that the orbits of the planets are circles, prove that the squares of their periodic times are proportional to the cubes of their distances from the Sun.

9. Assuming the law of hydrostatic pressure on any indefinitely small plane area immersed in a homogeneous liquid, prove the law for a plane area of finite dimensions.

10. Determine the *centre of pressure* corresponding to a homogeneous liquid:—

(*a.*) Of a parallelogram, two sides of which are horizontal, and sunk to given depths.

(*b.*) Of a parallelogram, one diagonal of which is horizontal, while the extremities of the other are sunk to given depths.

(*c.*) Of a circle sunk in any way.

11. Prove that the *deviation* of a ray of light, which passes through a prism, is minimum when the angles of incidence and emergence are equal.

12. Prove that a pair of conjugate foci of a thin lens will still remain conjugate, if the two surfaces of the lens be interchanged.

Third Year's Arts, and Second Year's Engineering.

Experimental Physics—Honors.—*Examiner, Professor Curtis,* LL.D.

1. What law of gases is illustrated by Mariotte's tube? Describe the experiments, which may be made with this apparatus, and state the precaution to be observed in using it.

2. Describe the several corrections to be applied to observed readings of a mercurial, and of a water, barometer, stating with regard to each

Appendix E. Sessional Examinations.

barometer, which correction is to be added to, or subtracted from, the observed reading under the *same* circumstances, and how far the circumstances may affect the sign of any correction.

3. Explain how the balance may be employed in determining the specific gravity :—

(*a.*) Of a solid heavier than water.
(*b.*) Of a solid lighter than water.
(*c.*) Of a solid soluble in water.
(*d.*) Of a liquid.

4. Explain what is meant by *the constants* of a specific gravity bottle, and describe how they may be computed.

5. Distinguish between *Linear*, *Superficial*, and *Cubical* expansion due to increase of temperature, and establish the relations between them.

6. Describe Six's maximum and minimum thermometer.

7. State the law relative to the mutual action of magnetic poles ; and also the analogous law regarding electrical action.

8. How may it be shown that the charge on that side of a Leyden jar, which is in contact with the prime conductor of a machine, by which it is charged, is greater than that on the other side?

9. State the law which determines the rate of vibration of a stretched string, all particulars respecting which are given, and describe the several experiments by which the law is verified.

Additional credit will be given for answers to the following questions.

10. Determine the relation between the *pressure* and *volume* of a gas, when no heat is allowed to escape.

11. State Biot's hypothesis regarding the magnetic action of the earth, and deduce from it the law that the tangent of the *magnetic dip* is double the tangent of the *magnetic latitude.*

12. A fixed horizontal magnet acts on an indefinite vertical current ; determine the *lines of force*, and the *curves of equilibrium.*

13. The law of action between an indefinite vertical current and a *single* pole of a horizontal magnet, as deduced from Ampère's law, contradicts the general law connecting action and reaction; show that this contradiction disappears when the two poles are simultaneously considered.

14. Determine the positions of stable and unstable equilibrium of a circular current free to revolve round a vertical diameter, and acted on by the earth's directive force.

15. Explain the principle of Wheatstone's bridge, and show how, by its aid, the position of a fault in a telegraphic wire may be determined:—

(*a.*) When the fault is total.
(*b.*) When the fault is partial.

16. Establish formulæ, which give the lengths of all tubes open at both ends, or at one only, which will resonate to a given tuning fork.

Third Year's Arts.

Mixed Mathematics—Honors.—*Examiner, Professor Curtis,* LL.D.

1. Two forces acting along chords of a circle are inversely proportional to the lengths of these chords ; find the direction of their resultant.

2. Prove that any system of forces acting on a rigid body may be reduced to a single force passing through any assumed point and a single couple; state and interpret the invariable relation which connects this force and this couple, wherever the assumed point may be.

3. The density of a triangle varies as the n^{th} power of the distance from the base, and the centre of gravity divides the line joining the vertex to the middle point of base in the ratio $m:1$; prove that $n=\frac{2-m}{m}$.

4. Prove the following properties of the common catenary:—

(*a.*) The radius of curvature is equal to the normal.

(*b.*) The difference of the tensions at any two points is proportional to the vertical distance between the points.

(*c.*) Its evolute is a tractrix.

5. Enunciate and prove the principle of *virtual velocities*.

6. Show that a heavy body bounded by a curved surface and restricted to a horizontal plane will have, *at least, two* positions of equilibrium, one stable, and the other unstable, and show how you would determine whether, if a position of *apparently* neutral equilibrium exist, the equilibrium in this position is *really* stable or unstable.

7. Prove the equations—

$$v^2=\mathrm{F}\frac{c}{2},\quad vdv=\mathrm{F}dr=\frac{h^2}{2}d\left(\frac{1}{p^2}\right),\quad \frac{d^2u}{d\theta^2}+u+\frac{\mathrm{F}}{h^2u^2}=0,$$

F being a central force.

8. Find the law of force in—

(*a.*) An ellipse, the force being directed towards one of its foci.

(*b.*) An ellipse, the force being directed towards its centre.

(*c.*) A parabola, the force being directed towards its focus.

(*d.*) Any conic section, the force acting parallel to a given line in its plane.

9. Prove that in a compound pendulum the *centre of suspension* and the *centre of oscillation* are convertible.

10. Determine the *moments of inertia* of a homogeneous ellipsoid round its three axes.

Third Year's Engineering.

Applied Natural Philosophy.—*Examiner, Professor Curtis*, ll.d.

1. Determine the weight of an oak door 7 feet high, 3 feet wide, and $1\frac{1}{2}$ inches thick, the specific gravity of oak being ·934.

2. The tenacity of wrought-iron being 67,200, determine the least length of a bar of wrought-iron, which, being suspended vertically, would break by its own weight, the specific gravity of wrought-iron being 7·788.

3. What must be the horse-power of an engine that raises 40 cubic feet of water per minute from a depth of 100 fathoms?

4. Explain in what respects a buttress helps the wall of a building to sustain the pressure of a roof.

5. Determine expressions for the stresses on the rafters of a roof and on the tie-beam.

Appendix E.

Sessional Examinations.

6. State the most general case in which the pressure of earth on a vertical wall follows the same law as fluid pressure, and find the total pressure, and its point of application in this case.

7. Determine the expression for the sliding motion of two corresponding teeth on any two pitch curves.

8. Show that, the pitch circle of a driving-wheel and an epicycloidal tooth on it being given, the pitch circle of the follower can be found—

(*a.*) When the follower is a *pin-wheel.*

(*b.*) When the follower carries radial teeth.

9. Prove that in general, *but not always*, the minimum number of radial lines in the latter case, in question 8, is double that of the pins in the former.

10. Explain what is meant by *involute* teeth; show that they are included in *roulette* teeth, and determine the generatrix of the roulette curves in this case.

Faculty of Medicine.

Natural Philosophy.—*Examiner, Professor Curtis,* LL.D.

1. State whether equilibrium can exist between the three forces:—

(*a*) 2 lbs., 3 lbs., 6 lbs. (*b*) 3 lbs., 4 lbs., 5 lbs.
(*c*) 3 lbs., 4 lbs., 6 lbs. (*d*) 4 lbs., 4 lbs., 4 lbs.

and determine, so far as you can, the relative directions of the forces in each case, in which equilibrium is possible.

2. Describe the principal mechanical powers, and deduce the expression for the Mechanical Advantage in any one, or more.

3. Calculate the time, in which a heavy body, starting from rest, will descend through 121 feet, also the velocity acquired in falling.

4. What causes limit the extent to which rarefaction may be produced by an *ordinary* air pump?

5. Explain the principal corrections, which must be applied to readings made on a Mercurial Barometer, and explain the difference, if any, in applying these corrections at the top of a mountain and in a mine.

6. How may it be proved that Light, Heat, and Sound, are reflected according to the same law?

7. By what experiment may the radiating powers of different surfaces be compared?

8. What is meant by conjugate foci—

(*a*) in the case of a plane reflector?
(*b*) in the case of a spherical reflector?

Are the two strictly analogous?

9. How may the two kinds of Magnetic Curves be exhibited?

10. By what arrangement may it be shown that the *direction* of the Voltaic current, arising from two metals being immersed in a liquid, depends on the liquid?

11. Commencing with the note, which corresponds to 220 vibrations per second, determine the rate of vibration of every note of the gamut in the ascending scale.

12. Explain the characteristics of a Nodal point, or section—

(*a*) in the case of an organ pipe;
(*b*) in the case of a stretched string.

SURGERY.—*Examiner, Professor Browne,* M.D.

SENIOR CLASS.

1. What are the causes of compression of the brain from an injury of the head without external wound? Give the symptoms you would look upon as the most dangerous; and in what respect would your treatment be determined by them?

2. What are the symptoms of a gunshot wound perforating the lung you would look upon as most dangerous, from what special cause do they arise, and what treatment would you adopt in such case to save life?

3. What are the complications which may occur in a bad compound fracture of the leg, stating the causes which point to immediate and those which refer to remote danger?

JUNIOR CLASS.

1. What are the proper effusions of inflammation, and in what respect are they affected by the tissues in which they occur?

2. What are the symptoms of acute inflammation occurring in a serous membrane such as peritoneum; and what are those you would apprehend as leading to a fatal result—giving the treatment you would adopt to prevent them?

3. State the different modes of arresting arterial hemorrhage in incised and lacerated wounds, naming the surgeons who specially recommended some of them?

PRACTICE OF MEDICINE.—*Examiner, Professor Colahan,* M.D.

1. State the various causes, local and constitutional, which induce inflammation of the stomach.

2. State the particular appearances and lesions which take place in the Ilium during Typhoid fever, and the particular morbid appearances induced by other diseases in this portion of the intestine.

3. Give a classification of the various forms of Bright's disease, and the peculiar characteristics of each.

4. Give the symptoms of acute inflammation of the Parenchyma of the Liver, and the symptoms which would induce you to apprehend the formation of matter.

5. Mention the several forms of Diarrhœa, the causes which induce them, and their treatment.

6. A patient presents himself suffering from Jaundice; how will you discover the nature of the attack? How will this influence your treatment? Give the various causes of the disease, according to the classification made of it.

(6th question for Senior Students.)

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REPORT

ON

THE CONDITION AND PROGRESS

OF THE

QUEEN'S UNIVERSITY IN IRELAND,

FOR THE YEAR 1876-77.

BY

HIS GRACE THE DUKE OF LEINSTER,
CHANCELLOR OF THE UNIVERSITY.

Presented to both Houses of Parliament by Command of Her Majesty.

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REPORT.

TO HIS GRACE JOHN WINSTON DUKE OF MARLBOROUGH, K.G.,

&c., &c., &c.,

LORD LIEUTENANT-GENERAL AND GENERAL GOVERNOR OF IRELAND.

Queen's University, Dublin Castle,
June 1, 1877.

May it please your Grace,

As Chancellor of the Queen's University in Ireland, it becomes my duty, in compliance with the provisions of Her Majesty's Charter, to furnish to your Grace the Report of the Condition and Progress of the University since the 1st June, 1876.

The General University Examinations during the period of this Report commenced on the 20th of September, and terminated on the 10th of October, 1876. Examinations for Degrees in the Faculty of Medicine were also held in June, 1876, and First University Examinations in Arts and Engineering were also held in January, 1877. At these various Examinations 684* Candidates presented themselves. Lists of those who were successful are annexed, and a List of the Students Matriculated in the University since the 1st of October last. App. II.

In addition to these Examinations for Members of the University, Examinations of Candidates who are not Members of the University, both Male and Female, were held in the month of June, 1876.

The principal public meeting of the University, to confer degrees and diplomas, and distribute prizes, was held in St. Patrick's

* In this number the candidates who underwent more than one distinct University Examination within the year are enumerated separately.

App. I. Hall, Dublin Castle, on the 13th of October last. An account of the proceedings is appended to this Report.

The following papers are also annexed for your Grace's information :—

App. III. The Estimate for the year.

App. IV. The Cash Account for the year.

App. V. A Return of the several Meetings of the Senate since my last Report.

I have the honour to be
Your Grace's
Obedient and faithful Servant,
LEINSTER,
Chancellor.

APPENDIX.

Appendix I.

PUBLIC MEETING of the QUEEN'S UNIVERSITY in IRELAND, held in St. Patrick's Hall, Dublin Castle, on the 13th October, 1876.

AFTER the close of the Examinations of the year 1876, a public meeting of the Queen's University was held in Dublin Castle on the 13th October, 1876, for conferring degrees, diplomas, and prizes.

A large number of distinguished persons having taken their places in the Examination Hall, His Grace the Duke of Leinster, Chancellor of the University, the Senate, the Professors and Examiners, and the Candidates, entered it in procession.

HIS GRACE THE DUKE OF LEINSTER, Chancellor of the University, opened the meeting with the following address :—

We are assembled this day to confer upon the successful competitors the several degrees and other distinctions which they have won in the examinations in the Queen's University. In the printed lists the names are also given of the candidates who satisfied the University examiners in January and in June. In the Faculty of Arts, 8 candidates have presented themselves for the degree of Master in Arts, and have all been deemed worthy of University honors. Fifty-eight candidates presented themselves for the degree of Bachelor in Arts, of whom 50 have satisfied the University examiners, and among these 18 have been considered deserving of University distinctions. Seventy others presented themselves at the first University examination in arts, and of these 40 have passed—10 of them with honors. In the Faculty of Law four Bachelors in Arts presented themselves for the degree of Bachelor in Laws, and of these two are reported by the examiners as having answered with distinction, and a third as having satisfied them. An *ad eundem* degree of Bachelor in Laws will be conferred to-day upon another graduate in Arts of this University, who pursued his legal studies in the University of Cambridge with distinction. In the Faculty of Medicine 86 candidates have sought the degree of Doctor in Medicine, and of these 53 have satisfied our examiners; 47 out of 76 candidates have passed for the degree of Master in Surgery, and 27 out of 55 have been deemed qualified for the separate diploma which the University grants in Midwifery. 115 candidates presented themselves at our second University examination in medicine, of whom 65 have come up to the standard required by the examiners; while 112 out of 186 candidates have been successful at our first University examination in this faculty. The Senate has passed a special grace to confer the honorary degree of Doctor in Medicine upon Fleet-Surgeon Eustace, of the Royal Navy, who highly distinguished himself in his care of the troops placed under his charge after the Ashantee war. In the department of civil engineering, seven candidates presented themselves for an engineering degree, of whom all answered satisfactorily, and 15 presented themselves at the first University examination in that faculty, of whom 8 have passed. Within the

Appendix. I. Public Meeting.

last year her Majesty's Government have taken into their consideration the requirements of the Queen's University. Their investigation has not yet concluded, but they have already taken two steps which are calculated to increase the efficiency of our colleges. Some years ago the sum placed at the disposal of each of our colleges for meeting certain expenses, including the supply of the college library, and of the scientific collections, was reduced from £1,600 to £1,000. The diminished sum was found inadequate, and in the present year Parliament has consented to restore it to its original amount. The conditions, too, upon which infirm or aged professors were admitted to superannuation were such that the class fees paid to them were not taken into account in computing the amount of their retiring allowances. The Treasury, at the request of Sir Michael Beach, has made arrangements which will enable it in future to take these class fees into account without infringing the rules by which it is guided, thus somewhat increasing the allowance which can be made to a retiring professor. I am happy to observe from returns which have been placed in my hands that several graduates of the Queen's University have been, within the year, placed in important scholastic positions. Mr. John M'Kane, a Master in Arts of the University, has been appointed Professor of English Law in Queen's College, Belfast. Dr. Charles, a Master in Arts and Graduate in Medicine of the University, has been appointed Professor of Anatomy in Queen's College, Cork ; while Mr. Kirkpatrick, Mr. Maybin, and Mr. Chambers, other graduates of the University, have been appointed Head Masters respectively of Lurgan Endowed School, of the Burgh School at Kirkcaldy, and of the Grammar School at Perth. Mr. Hynes, a Master in Arts of the University, has won, by competition, another educational appointment—that of Inspector of National Schools in Ireland. At the open competition for the British Consular Service in the East, which was held last January, Mr. J. W. M'Carthy and Mr John Newell Jordan, both of Queen's College, Cork, obtained respectively the first and second places. Three students of the University—Mr. Roche, Mr. Boyle, and Mr. Dorman—obtained places in the Indian Engineering Service, while ten others won appointments in the Indian Medical Service or at the competitions for the Army and Navy Medical Services. At the competition for the Indian Medical Service, the first place was taken by Dr. James Moorhead, a graduate in Arts and Medicine of this University (applause).

Appendix II.

Degrees, Diplomas, Certificates, &c., conferred in 1876.

The names in each class are arranged alphabetically.

Degrees.

October, 1876.

The Degree of M.D.

Names.	College.
First Class.	
M'Geagh, William,	Belfast.
Welply, John Jagoe,	Cork.
Second Class.	
Mullane, Jeremiah,	Cork.
Woods, Arthur A.,	Belfast.
Upper Pass Division.	
Camac, Robert John,	Belfast.
Latour, George Lewis,	Cork.
Lower Pass Division.	
Allen, Alfred,	Belfast.
Archer, Thomas,	Belfast.
Bateman, Samuel,	Belfast.
Beattie, Robert,	Galway.
Brannigan, Robert Allen,	Belfast.
Brodie, James Fitzgerald,	Galway.
Burke, Richard John,	Cork.
Collins, Michael,	Cork.
Derham, Arthur,	Cork.
Eccles, Robert, M.A.,	Belfast & Cork.
Isaac, John Baldwin,	Cork.
Kennedy, James Martin,	Belfast.
Kirker, Gilbert,	Belfast.
M'Ivor, Robert,	Belfast.
M'Vittie, Robert Blake,	Galway.
Magill, James,	Belfast.
Molony, Henry, B.A.,	Galway.
Mulrenan, John,	Cork.
Neill, Channing,	Belfast.
O'Sullivan, Maurice Joseph	Cork.
Riordan, Thomas Francis,	Cork.
Tanner, Charles K. D., B.A.,	Cork.

June, 1876.

Bennett, Charles Henry,	Cork.
Bradley, David,	Belfast.
Coates, William,	Galway & Cork.
Collins, Frederick H.,	Belfast.
Connell, Jephson J.,	Cork.
Dempsey, Patrick J.,	Belfast.
Dickson, J. Dunbar,	Galway & Belfast.
Dillon, John T.,	Cork.
Donovan, Justin F.,	Cork.
Dundon, Michael,	Cork.
Geoghegan, F. Meagher,	Galway.
Good, Charles,	Cork.
Greer, Thomas, M.A.,	Belfast.
Hunter, Henry,	Belfast.
Laffan, George,	Cork.
M'Afee, William,	Galway.
M'Carthy, Michael J.,	Cork.
MacDonnell, Mark A.,	Galway.
M'Master, R. Dickie,	Belfast.
Marks, Edward G. K.,	Galway.
Murphy, Francis H. S.,	Cork.
Pedlow, James,	Belfast.
Wales, John F., B.A.,	Belfast.
Wallace, Archibald,	Belfast.
Williamson, William Cotter,	Cork.

Honorary Degree.

Eustace, Richard, ... Fleet Surgeon, R.N.

The Degree of M.A.

First Class.

Names.		College.
Brookes, Thomas Boyle,	In Ancient Classics,	Belfast.
Corker, Thomas Martin,	In Biological Science,	Cork.
Kelly, Michael,	In Mathematical Science,	Galway.
Murphy, John Howard,	In Experimental Science,	Belfast.
Somerville, Annesley A.,	In Mathematical Science,	Cork.

Second Class.

Hanna, James,	In English, Metaphysics, and History,	Belfast & Galway.
Tate, Alexander Chambers,	In Experimental Science,	Belfast.
Wilson, Samuel Law,	In English, Metaphysics, and History,	Galway.

Appendix.

II.

Degrees, Certificates, and Honors, 1876.

Masters in Surgery.

OCTOBER, 1876.

Names.	College.	Names.	College.
Allen, Alfred,	Belfast.	M'Geagh, William,	Belfast.
Archer, Thomas,	Belfast.	M'Ivor, Robert,	Belfast.
Bateman, Samuel,	Belfast.	Molony, Henry, B.A.,	Galway.
Beattie, Robert,	Galway.	Mullane, Jeremiah,	Cork.
Brannigan, Robert Allen,	Belfast.	Neill, Channing,	Belfast.
Brodie, James Fitzgerald,	Galway.	O'Sullivan, Maurice Joseph,	Cork.
Burke, Richard John,	Cork.	Riordan, Thomas Francis,	Cork.
Camac, Robert John,	Belfast.	Robertson, David, M.D.,	Belfast.
Collins, Michael,	Galway.	Tanner, Charles K. D., B.A.,	Cork.
Eccles, Robert, M.A.,	Belfast.	Welply, John Jagoe,	Cork.
Kyle, Thomas William, M.D.,	Belfast.	Woods, Arthur A.,	Belfast.
Latour, George Lewis,	Cork.		

JUNE, 1876.

Bennett, Charles Henry,	Cork.	Geoghegan, F. Meagher,	Galway.
Coates, William,	Galway & Cork.	Good, Charles,	Cork.
		Greer, Thomas, M.A.,	Belfast.
Collins, Frederick H.,	Belfast	Laffan, George,	Cork.
Connell, Jephson J.,	Cork.	M'Afee, William,	Galway.
Dempsey, Patrick J.,	Belfast.	M'Carthy, Michael J.,	Cork.
Dickson, J. Dunbar,	Galway & Belfast.	MacDonnell, Mark A.,	Galway.
		Marks, Edward G. K.,	Galway.
Dillon, John T.,	Cork.	Murphy, Francis H. S.,	Cork.
Donovan, Justin F.,	Cork.	Pedlow, James,	Belfast.
Dundon, Michael,	Cork.	Ross, James, M.D.,	Belfast (*in absentia*).
Fergus, Samuel, M.D.,	Belfast.		
Fisher, Turner J., M.D.,	Belfast (*in absentia*).	Wales, John F., B.A.,	Belfast.
		Williamson, William Cotter	Cork.

The Degree of LL.B.

SECOND CLASS.

Gordon, John,	Galway.
Taylor, William C.,	Cork.

UPPER PASS DIVISION.

Hannigan, Denis F.,	Cork.

SPECIAL CASES.

Gardner, Edward,	Belfast, examined in 1866.
Munroe, Joseph Edwin C., LL.B.,	Cambridge, *ad eundem*.

The Degree of B.A.

FIRST CLASS.

Andrews, Thomas John,	In Ancient Classics,	Belfast.
Bigger, James Lyle,	In Modern Languages,	Belfast.
Bingham, James,	In Experimental Science,	Belfast.
Brown, Samuel Lombard,	In Metaphysics, History, and Political Economy,	Cork.
Eccles, John,	In Mathematical Science, and Second in Experimental Science,	Belfast.
Hamill, Thomas Macafee,	In English, Logic and Metaphysics,	Belfast.
Keating, Michael,	In Logic, Metaphysics, and Political Economy,	Cork.
Oliver, Charles Henry,	In Mathematical Science, and First in Experimental Science,	Belfast.
Rogers, Samuel Wm. Smith,	In Ancient Classics,	Belfast.

SECOND CLASS.

Benson, Hamilton,	In Biological Science,	Cork.
Farrelly, Michael J.,	In Ancient Classics,	Galway.
Kerr, Æneas,	In Ancient Classics,	Galway.
Lewis, John Penry,	In English, History, & Political Economy,	Galway.
M'Keown, James,	In Modern Continental Languages,	Belfast.
M'Keown, John,	In Experimental Science, and Second in English, Metaphysics, and History,	Belfast.
Parke, David,	In Experimental Science,	Belfast.
Ross, Nathaniel,	In Logic, Metaphysics, and Political Economy,	Belfast.
Todd, Andrew,	In English, Logic, and History,	Galway.

UPPER PASS DIVISION.

Names.	College.	Names.	College.
Craig, William Waters,	Belfast.	M'Cosh, John,	Belfast.
Donnell, William,	Belfast.	Monteath, David Taylor,	Belfast.
Donovan, Edwin Sandys,	Cork.	Pennall, William James,	Belfast.
Dorman, Thomas,	Cork.	Stevenson, Hugh,	Belfast.
Huggard, William Richard,	Galway& Belfast.	Street, Christopher James,	Belfast.
Kelly, William,	Galway& Cork.	Sullivan, John Philip,	Cork.

LOWER PASS DIVISION.

Ambrose, Robert,	Cork.	Love, George Clarke,	Galway.
Barry, William,	Cork.	Love, Robert Lindsay,	Galway.
Best, Edwin,	Belfast.	M'Granaghan, William,	Galway.
Boyd, Thomas,	Belfast.	Morrell, Charles Lucas,	Belfast.
Dunn, David Simpson,	Belfast.	Orr, John,	Belfast.
Farrington, Thomas,	Cork.	Orr, William Thomas,	Belfast.
Fisher, Joseph Robert,	Galway.	Stirling, John Hamilton,	Belfast.
Forman, William Johnston,	Galway.	Tait, William,	Belfast.
Jackson, John,	Belfast.	Townsend, Samuel,	Cork.
Knowles, James,	Belfast.	Williams, James Foster,	Belfast.

The Degree of Bachelor in Engineering.

FIRST CLASS.

Sproull, Alexander M'Dowal, ... Belfast.

LOWER PASS DIVISION.

Campion, Richard Gifford,	Cork.	M'Mullen, Michael J.,	Cork.
Lavertine, Richard,	Galway.	Morony, H. Vereker Lloyd,	Belfast.
Nolan, Foster,	Belfast.	Seaver, Thomas,	Belfast.

Diplomas in Midwifery.

OCTOBER, 1876.

Allen, Alfred,	Belfast.	Derham, Arthur,	Cork.
Archer, Thomas,	Belfast.	M'Geagh, William,	Belfast.
Brodie, James Fitzgerald,	Galway.	Mullane, Jeremiah,	Cork.
Burke, Richard John,	Cork.	Riordan, Thomas Francis,	Cork.
Camac, Robert John,	Belfast.	Welply, John Jagoe,	Cork.

JUNE, 1876.

Coates, William,	Galway& Cork.	Fisher, Turner J., M.D.,	Belfast (*in absentia.*)
Collins, Frederick H.,	Belfast.	Geoghegan, F. Meagher,	Galway.
Connell, Jephson J.,	Cork.	Good, Charles,	Cork.
Dempsey, Patrick J.,	Belfast.	Hunter, Henry,	Belfast.
Dickson, J. Dunbar,	Galway& Belfast.	M'Afee, William,	Galway.
		MacDonnell, Mark Anthony	Galway.
Dillon, John T.,	Cork.	Murphy, Francis H. S.,	Cork.
Donovan, Justin F.,	Cork.	Pedlow, James,	Belfast.
Fergus, Samuel, M.D.,	Belfast.	Ross, James, M.D.,	Belfast (*in absentia.*)

Second University Examination in Medicine.

OCTOBER, 1876.

FIRST CLASS.

Pearson, Charles Yelverton, ... Cork.
Whitford, William, ... Belfast.

SECOND CLASS.

Hadden, Robert Evans, ... Cork.
M'Kinlay, John, ... Galway.

UPPER PASS DIVISION.

Dunlop, Joseph Samuel, ... Belfast.
Gibson, James Hill, ... Belfast.
White, Edward Alexander, ... Belfast.
Young, James, ... Belfast.

Appendix.

II.

Degrees, Certificates, and Honors, 1876.

LOWER PASS DIVISION.

Names.	College.	Names.	College.
Aherne, John Leonard, B.A.,	Cork.	MacNeece, James Gaussen,	Belfast.
Considine, Patrick Oswald,	Belfast.	Magill, Charles,	Belfast.
Crowly, Joseph,	Cork.	Moore, Edward Head,	Galway.
Haslett, John Courtenay,	Belfast.	Pollard, Evelyn Rich. Hugh,	Galway.
Holland, James F. R.,	Cork.	Shipsey, Thomas,	Cork.
Lamprey, Richard Orford,	Galway.	Thompson, Henry George,	Cork.
Levis, Samuel George,	Cork.	Warden, David Brown,	Galway.
Little, Stephen,	Belfast.	Wilson, James,	Galway & Belfast.
M'Learn, Isaac Crawford,	Belfast.		

JUNE, 1876.

Atkins, T. Gelston, B.A.,	Cork.	Little, Edward,	Belfast.
Bennett, Alfred C.,	Cork.	Loughrey, Richard,	Belfast.
Byers, John William, M.A.,	Belfast.	Lyden, Michael J.,	Galway.
Dunlop, Albert,	Belfast.	Lytle, Joshua,	Belfast.
Erwin, Samuel J.,	Belfast.	M'Vittie, Robert Blake,	Galway.
Fleck, William,	Belfast.	O'Brien, Thomas M.,	Galway.
Graham, Charles,	Belfast.	O'Connor, Patrick,	Galway.
Hall, Charles,	Belfast.	Riordan, Daniel,	Galway.
Hanrahan, James Palmer,	Cork.	Sheedy, John,	Galway.
Heard, Robert Lynn,	Belfast.	Tuohy, John F.,	Cork.
Keogh, Alfred,	Galway.	Withers, Thomas John,	Belfast.
Kevin, Charles,	Belfast.	Workman, Charles,	Belfast.
Lawlor, Joseph S.,	Galway.		

First University Examination in Arts.

FIRST CLASS, IN ORDER OF MERIT.

Knowles, Thomas Torrens,	Belfast.	Stronge, James Moreland,	Belfast.
Henry, Augustine,	Galway.	Russell, Samuel Marcus,	Belfast.
Equal { Lindsay, James Alex.,	Belfast.	Charles, Robert Henry,	Belfast.
{ Weir, Charles James,	Belfast.		

SECOND CLASS, IN ALPHABETICAL ORDER.

Henderson, Thomas,	Galway.	Todd, Robert,	Belfast.
Hunter, Charles William,	Galway.		

UPPER PASS DIVISION.

Graham, John Campbell,	Belfast.	Mathers, Henry Alexander,	Belfast.
Hamilton, Andrew Breakey	Belfast.	Nesbitt, Alfred A. J.,	Belfast.
James, Arthur,	Galway.	Waterworth, Hugh,	Galway.
M'Harg, John,	Belfast.		

LOWER PASS DIVISION.

Crone, Alexander,	Belfast & Galway.	Minniken, John,	Galway.
		Moore, R. C.,	Belfast.
Dickson, Charles,	Belfast.	Riordan, James John,	Cork.
Hackett, Robert J. D.,	Galway.	Torrens, Frederick,	Belfast.
Irwin, Clarke H.,	Cork.	Williamson, James R. D.,	Belfast.
Laffan, John Edward.	Cork.	Young, William James,	Belfast.
MacNeece, John S.,	Belfast.		

First University Examination in Arts—Supplemental.

JANUARY, 1877.

Bell, George,	Belfast.	Horan, T.,	Galway.
Colquhoun, William,	Belfast.	Lodge, George Joseph,	Belfast.
Corry, Thomas Hughes,	Belfast.	Simms, John M.,	Belfast.
Foley, James,	Cork.	Wall, E.,	Cork.
Gorham, John,	Galway.	Young, Robert M.,	Belfast.
Hamill, Samuel,	Belfast.		

First University Examination in Medicine.

OCTOBER, 1876.

UPPER PASS DIVISION.

Alexander, Robert,	Belfast.	Ritchie, William James,	Belfast.
Bradshaw, Isaac,	Belfast.	Simpson, John,	Belfast.
Dickey, Samuel,	Belfast.	Smyth, John,	Galway.
Dinnis, John Jeffreys,	Cork.	Strahan, Samuel A. K.,	Belfast.
Legge, Richard John,	Cork.	Vint, John,	Belfast.
Mullane, Patrick,	Cork.	Wheeler, Thomas Kennedy,	Belfast.

LOWER PASS DIVISION.

Names.	College.	Names.	College.
Acheson, John,	Belfast.	Hamill, James,	Belfast.
Barron, James, B.A.,	Belfast.	Hanna, William Gordon,	Belfast.
Bennett, John Edgar,	Belfast.	Heanen, Charles,	Belfast.
Blake, Charles J.,	Belfast.	Horan, Edward, M.A.,	Cork.
Bolster, James M'Mullen,	Cork.	M'Kee, Ebenezer,	Belfast.
Caldwell, William Hamilton,	Belfast & Galway.	M'William, William N.,	Belfast.
		Malcomson, Samuel Murphy,	Belfast.
Campbell, Richard,	Belfast.	Mossman, Robert Arthur,	Galway.
Crone, John,	Belfast.	Mullin, James, B.A.,	Galway.
Daly, Pierce Joseph,	Cork.	O'Reilly, Myles William,	Cork.
Daunt, George,	Cork.	Redmond, Leonard,	Belfast.
Dorman, Thomas,	Cork.	Sharpe, Alexander,	Belfast.
Ferguson, James Mark,	Belfast.	Smyth, William,	Belfast.
Fergusson, James Hugh,	Galway & Belfast.	Stuart, Simson,	Galway.
		Suffern, A. Canning,	Belfast.
Franklin, Denham Francis,	Cork.	Thomas, John Tubb,	Cork.
Garde, Henry Croker,	Belfast & Cork.	Tweed, James Moore,	Galway.
		Watson, John Wallace,	Belfast.
Gilbert, John James,	Belfast.	Wheeler, Charles Henry,	Belfast.
Gilmore, Robert,	Belfast.	White, Sinclair,	Galway.
Graham, Joseph,	Belfast.	Williams, David Leopold,	Cork.
Graham, Richard,	Belfast.	Wray, James Stewart,	Galway.
Hall, James,	Belfast.	Young, William Mussen,	Belfast.

JUNE, 1876.

Allport, Henry Kingston,	Cork.	Lamprey, Richard O.,	Galway.
Atkinson, William,	Galway.	Love, Andrew S.,	Belfast.
Baxter, Francis H.,	Galway.	Lynn, William P.,	Belfast.
Brannigan, John Henderson,	Belfast.	M'Carthy, Thomas,	Cork.
Brosnam, Hugh,	Cork.	Magill, Charles,	Belfast.
Burns, Joseph Henry,	Belfast.	Mahon, John,	Galway.
Butt, Edward,	Belfast.	Martin, John,	Galway.
Cotter, Jeremiah,	Cork.	Matthews, William J.,	Belfast.
Cowden, William James,	Belfast.	Milward, Edwin O., M.A.,	Galway.
Cummins, William E. A.,	Cork.	Mitchell, Andrew A.,	Galway.
Daly, Richard Condon,	Cork.	Molony, Cornelius,	Cork.
Delahunt, James Joseph,	Galway.	Mullin, Daniel O'Connell,	Galway.
Dunlop, Peter,	Belfast.	Neligan, James C.,	Galway.
Fayle, Robert James,	Galway.	O'Connor, George A.,	Galway.
Frazer, Archibald,	Cork.	O'Driscoll, Denis,	Galway.
Gault, David,	Belfast.	O'Malley, David J.,	Galway.
Geraghty, James,	Cork.	Pollard, Evelyn R. H.,	Galway.
Givan, Joseph,	Belfast.	Pullin, Arthur H.,	Cork.
Gordon, John Joseph,	Galway.	Quinlan, Denis,	Cork.
Griffin, Daniel,	Cork.	Reade, George,	Galway & Belfast.
Haly, Daniel,	Cork.		
Hanly, Thomas F.,	Galway.	Reynolds, Thomas T.,	Galway.
Harper, Henry,	Galway.	Rentoul, Robert R.,	Belfast.
Harrington, Stanley,	Cork.	Rutherford, Robert L.,	Cork.
Hodsdon, James W. B.,	Belfast.	Thompson, Henry George,	Cork.
Hosford, John,	Cork.	Warden, David Browne,	Galway.
Jackson, Mark,	Galway.	Warder, Robert B.,	Belfast.
Johnson, Samuel W.,	Galway.	Webber, F. C. F. B.,	Galway.
Lacy, Thomas,	Belfast.	Young, James,	Belfast.

First and Second University Examination in Medicine.

OCTOBER, 1876.

UPPER PASS DIVISION.

Bingham, Henry,	Belfast.
Mowbray, Robert,	Belfast.

LOWER PASS DIVISION.

Hartnett, John J.,	Cork.	Smyth, Charles,	Cork.
Herron, James,	Belfast.	Steele, Charles Edward,	—
Lindsay, John,	Belfast.		

Appendix.

II. Degrees, Certificates, and Honors, 1876.

JUNE, 1876.

Names.	College.	Names.	College.
Barry, Daniel Francis,	Cork.	Langley, P. W. L.,	Belfast.
Fox, Patrick H.,	Galway.	Madden, Thomas T.,	Galway.
Hamilton, Thomas T.,	Belfast.	Maxwell, Robert F.,	Galway.
Johnston, John Reid,	Belfast.	Mitchell, Robert,	Galway.

First University Examination in Engineering.

FIRST CLASS.

Barker, Alexander Arbuthnot, ... Galway.

UPPER PASS DIVISION.

Condon, Daniel, ... Galway.
Day, Robert Scott, ... Cork.

LOWER PASS DIVISION.

Hennessy, Stephen John,	Cork.	Macmillan, James,	Belfast.
Hull, Alexander E.,	Cork.	Sandiford, William H. K.,	Cork.

First University Examination in Engineering—Supplemental.

JANUARY, 1877.

Fleming, W., ... Cork.
Belcher, R. T., ... Cork.
Foley, J. D., ... Cork.

PRIZES FOUNDED BY PUBLIC SUBSCRIPTION.

PRIZES IN COMPOSITION, OPEN TO THE COMPETITION OF GRADUATES AND UNDERGRADUATES.

First Prize awarded for the Essay signed "Fac et Spera," to
Wilson, Samuel Law, B.A., of Queen's College, ... Galway.
Second Prize awarded for the Essay signed "Almagest," to
Shore, Robert, B.A., of Queen's College, ... Galway.

PRIZES IN COMPOSITION, OPEN TO THE COMPETITION OF ALL UNDERGRADUATES.

Prize in English Composition, for an Essay signed "Cadet Rouselle."

PRIZE IN COMPOSITION, LIMITED TO THE COMPETITION OF UNDERGRADUATES IN MEDICINE.

Prize awarded for the Essay signed "Respice finem."

Proxime accesserunt.

Equal { "Fortiter occupa portum." Collins, John T., of Queen's College, Belfast.
"Munditia sanitas est." Tomkins, Henry, of Queen's Colleges, Belfast and Galway.

EXHIBITIONS AWARDED AT THE FIRST UNIVERSITY EXAMINATION IN ARTS.

Knowles, Thomas Torrens, First from Queen's College, Belfast; £20 a year for three years; and £10 a year for three years, as the best answerer in Mathematical Science.

Henry, Augustine, First from Queen's College, Galway; £20 a year for three years.

Lindsay, James Alexander, £10 a year for three years, as the best answerer in Ancient Classics; and half of the Second Belfast Exhibition of £15 a year for three years.

Weir, Charles James, half of the Second Belfast Exhibition of £15 a year for three years.

EXHIBITION AWARDED AT THE FIRST UNIVERSITY EXAMINATION IN ENGINEERING.

Barker, Alexander Arbuthnot, of Queen's College, Galway; First; £20 a year for two years.

SECOND OR THIRD INSTALMENTS OF EXHIBITIONS.

Names.	Condition.	Exhibition Awarded.
Welply, J. J.,	M.D., with Honors,	October, 1874.
Woods, A. A.,	M.D., with Honors,	October, 1874.
Kerr, A. E.,	B.A., with Honors,	October, 1875.
Rogers, S. W. S.,	B.A., with Honors,	October, 1875.
Farrelly, M. J.,	B.A., with Honors,	October, 1875.
Oliver, C. H.,	B.A., with Honors,	October, 1875.
Eccles, J.,	B.A., with Honors,	October, 1875.
Sproull, A. M.,	B.E., with Honors,	October, 1875.

Special Subjects.

OCTOBER, 1876.

Names.	College.	Names.	College.
Fairclough, J. J. Kent,	Belfast.	Johnston, John R.,	Belfast.
Fox, Patrick H.,	Galway.	Martin, Samuel D.,	Belfast.
Hickman, Arthur,	Galway.	Maxwell, Robert F.,	Galway.
Irvine, William John,	Galway.	Murray, J. J. Goodlate,	Belfast.

JUNE, 1876.

Collier, John S.,	Belfast.	M'Ilroy, John,	Belfast & Galway.
Croly, Thomas H.,	Belfast.		
Davies, John,	Galway.	Martin, Samuel D.,	Belfast.
Denham, Thomas R.,	Belfast.	Stokes, William,	Galway.
Fairclough, J. J. Kent,	Belfast.	Studdert, John,	Cork.
Isaac, John B.,	Cork.	O'Brien, William D.,	Cork.
Kennedy, R. J.	Cork.	Whitla, William,	Belfast.
M'Conaghey, Robert,	Belfast.		

STUDENTS WHO HAVE MATRICULATED SINCE OCTOBER, 1876.

Acton, Young,	Cork.	Entrican, John,	Belfast.
Adams, Alexander M.,	Belfast.	Faulkner, George N.,	Belfast.
Allport, Charles William,	Cork.	Fawcett, Richard H.,	Cork.
Allport, Percy,	Cork.	Fenoulhet, Edward C.,	Galway.
Ambrose, Keane,	Galway.	Finlay, James,	Galway.
Anderson, Alexander,	Galway.	Flood, William,	Galway.
Anderson, Joseph,	Belfast.	Flynn, Edmund F.,	Cork.
Anderson, Robert,	Belfast.	Forsyth, David,	Belfast.
Annesley, Augustine R.,	Galway.	Frizell, Thomas,	Belfast.
Armstrong, William,	Belfast.	Galgey, Albert,	Belfast.
Aston, James Henry,	Belfast.	Galway, Patrick,	Cork.
Atock, Martin Henry,	Galway.	Garrett, Charles F.,	Galway.
Bailey, Robert Taylor,	Belfast.	Gillespie, James,	Belfast.
Bell, Thomas Gillespie,	Belfast.	Gleeson, William,	Galway.
Best, James,	Belfast.	Gordon, James,	Belfast.
Black, Homan,	Cork.	Gracey, Joseph,	Belfast.
Blake, Richard M.,	Galway.	Gunning, James,	Galway.
Bodkin, John C.,	Belfast.	Haines, Henry,	Cork.
Bradshaw, William Lucknow,	Belfast.	Hall, Charles,	Galway.
Brown, John J.,	Galway.	Halton, Michael J.,	Galway.
Brown, Thomas,	Cork.	Hamilton, Robert T.,	Galway.
Brown, William,	Galway.	Hanly, John Joseph,	Galway.
Browne, Alfred Valentine,	Belfast.	Hargrave, Joshua J.,	Cork.
Bryson, Charles,	Belfast.	Harper, Archibald,	Belfast.
Bullen, John W.,	Cork.	Harrington, William,	Cork.
Burke, Julio P.,	Galway.	Hartigan, William,	Galway.
Burrows, James R.,	Belfast.	Hayes, Edmond J. M.,	Galway.
Byers, Robert Henry,	Belfast.	Hazlett, William John,	Galway.
Calwell, William,	Belfast.	Henderson, William Robert,	Belfast.
Cole, John M. Coates,	Belfast.	Hogan, James,	Cork.
Cole, William R.,	Cork.	Horneck, Samuel,	Galway.
Collins, John S.,	Belfast.	Hosford, Benjamin,	Cork.
Collins, Thomas T.,	Galway.	Hosking, James W. P.,	Belfast.
Corley, Henry H.,	Galway.	Hughes, George,	Belfast.
Corrigan, William Jenkinson,	Belfast.	Humphries, Walter,	Galway.
Courtney, William,	Galway.	Irvine, Richard A.,	Galway.
Cregan, William J.,	Belfast.	Jamison, David,	Belfast.
Cromie, John M'Clelland,	Belfast.	Jennings, Frederick F.,	Cork.
Crowley, Joseph,	Cork.	Jennings, Michael,	Galway.
Crowley, Michael,	Cork.	Johnston, Alexander M.,	Galway.
Cunningham, John A.,	Belfast.	Jordan, William,	Galway.
Davidson, James Walshe,	Belfast.	Kavanagh, John,	Galway.
Deacon, John G.,	Belfast.	Keating, James,	Cork.
Dickson, Robert L.,	Galway.	Kerby, John Edward,	Belfast.
Dodd, John,	Belfast.	Kerrigan, Joseph P.,	Galway.
Douds, James,	Belfast.	Kiely, Michael	Galway.
Dundee, Charles,	Belfast.	Larmor, Alexander,	Belfast.
Eakin, Samuel,	Belfast.	Larmor, Hugh,	Belfast.
Eccles, John,	Cork.	Landon, Edward,	Cork.
Egan, Daniel,	Galway.	Ledlie, Andrew,	Belfast.
Elliott, John Trimble,	Galway.	Ledwich, Frederick F.,	Galway.
English, Joseph,	Belfast.	Lithgow, James Macgregor,	Belfast.

Appendix.

II.

Degrees, Certificates, and Honors, 1876.

Names.	College.
Long, Richard W.,	Cork.
Lowry, John H.,	Belfast.
Macaulay, Samuel,	Belfast.
M'Avoy, James,	Belfast.
M'Carthy, P. J.,	Cork.
M'Caull, James,	Belfast.
M'Caw, William,	Belfast.
M'Connell, Edward,	Galway.
M'Connell, Samuel D.,	Belfast.
M'Connell, Thomas,	Galway.
M'Corstin, William John J.,	Belfast.
M'Coy, Thomas,	Belfast.
M'Dowell, Thomas H.,	Galway.
M'Elrea, William,	Galway.
M'Enery, Michael J.,	Cork.
M'Farland, Robert Arthur H.,	Belfast.
M'Farland, William James,	Belfast.
M'Gaw, John,	Galway.
M'Geagh, James Paul,	Belfast.
M'Geagh, Robert Thomas,	Belfast.
M'Ilrath, John M'Meekan,	Belfast.
M'Kenna, Jeremiah,	Cork.
M'Laughlin, Francis,	Galway.
M'Mahon, William H.,	Cork.
M'Manus, Leonard,	Galway.
M'Meekan, John,	Belfast.
M'Neill, John R.,	Galway.
M'Vicar, Matthew,	Belfast.
Magennis, Edward,	Belfast.
Magowan, John,	Belfast.
Maguinness, Patrick,	Belfast.
Maguire, Connor J.,	Galway.
Major, Parker E.,	Belfast.
Martin, Donald Cargill,	Belfast.
Martin, James Collins,	Belfast.
Martin, John Dunwoodie,	Belfast.
Martin, William A. P.,	Belfast.
Mathers, Adam A. C.,	Belfast.
May, Thomas Henry,	Belfast.
Minniece, James,	Belfast.
Millar, Simpson,	Belfast.
Mitchell, Josias,	Belfast.
Montgomery, Henry,	Belfast.
Moody, John,	Belfast.
Moore, Hugh H.,	Belfast.
Moorhead, George Stuart,	Belfast.
Moorhead, John R.,	Galway.
Moran, John,	Cork.
Moran, Joseph,	Galway.
Moreland, Robert,	Galway.
Morgan, John,	Cork.
Morris, Richard J.,	Cork.
Morrison, Hugh S.,	Galway.
Morrow, James Boyd,	Cork.
Morrow, John,	Belfast.
Moynan, Joseph,	Galway.
Moynan, Richard M.,	Galway.
Moynan, William A.,	Galway.
Mulholland, Cunningham,	Belfast.
Mullally, William T.,	Galway.
Mullan, Edward H.,	Belfast.
Mullin, John F. L.,	Galway.
Murray, William,	Cork.
Musgrave, James,	Cork.
Nealon, Patrick,	Cork.
Neeson, Thomas Charles,	Belfast.
Nelson, Thomas Elliott,	Galway.
Noakes, Samuel S.,	Galway.
Noble, David William,	Galway.
Nolan, Herbert,	Galway.
Nunan, Thomas,	Cork.
O'Connell, Jeremiah A.,	Cork.
O'Hea, James J.,	Cork.
O'Keeffe, Michael,	Cork.
O'Kelly, Thomas,	Galway.
O'Leary, Louis,	Cork.
Oliver, Turner Barrett,	Belfast.
Orr, James Morrison,	Belfast.
Orr, Richard,	Cork.
Orr, William,	Belfast.
Osborne, Henry D.,	Belfast.
Osborne, James Denham,	Belfast.
O'Shaughnessy, Thomas H.,	Galway.
Peard, Frank,	Cork.
Peard, Henry J.,	Cork.
Porter, Thomas M.,	Galway.
Prendergast, Joseph M.,	Cork.
Pritchard, Thomas,	Galway.
Pudney, Charles,	Cork.
Quigley, Thomas E.,	Galway.
Rainey, James,	Belfast.
Ralph, Richard M.,	Belfast.
Ramsay, John James O.,	Belfast.
Reade, William L.,	Cork.
Redmond, John,	Belfast.
Reid, Charles,	Galway.
Riddell, Henry,	Belfast.
Robinson, Archibald C.,	Belfast.
Robinson, William,	Belfast.
Robinson, William,	Galway.
Rose, James,	Galway.
Rosingrave, Martin M.,	Galway.
Rosingrave, Thomas H.,	Galway.
Ross, Alexander Y.,	Belfast.
Roulston, William,	Belfast.
Ryan, Arthur,	Cork.
Ryan, Joseph,	Cork.
Scales, Martin,	Galway.
Scott, Hugh Robert,	Belfast.
Scott, John,	Galway.
Scully, Albert,	Cork.
Sexton, Michael,	Cork.
Shaw, Hugh Thomas,	Belfast.
Shaw, Samuel Hamilton,	Belfast.
Shaw, Wilfrid W.,	Belfast.
Shepherd, Robert,	Belfast.
Sheridan, Thomas M.,	Galway.
Shine, Eugene,	Galway.
Sloan, Isaac,	Belfast.
Smyth, William,	Belfast.
Sproule, Robert Harper,	Belfast.
Stacpoole, Stephen W.,	Cork.
Stevenson, Marcus,	Belfast.
Stewart, William Wright,	Belfast.
Sugrue, Jeremiah,	Cork.
Swanton, James H.,	Cork.
Tallant, Matthew,	Galway.
Taylor, James,	Belfast.
Thompson, Robert,	Cork.
Thompson, Robert L.,	Galway.
Travers, Robert,	Galway.
Tuohy, John,	Galway.
Wallace, Joshua T. N.,	Belfast.
Walsh, Francis,	Cork.
Weir, George,	Belfast.
Weir, George W.,	Cork.
Wheeler, Thomas K.,	Belfast.
Whitaker, Bailey M.,	Belfast.
Whitton, James,	Cork.
Wilson, Robert J.,	Belfast.
Young, George S.,	Belfast.

Appendix III.

Estimate of the Sum required to defray the Expenses of the Queen's University in Ireland, for the year ended 31st March, 1877.

	£	s.	d.
Salaries,	1,291	0	0
Examiners' Stipends,	1,710	0	0
Examiners' Expenses,	761	0	0
Medals and Prizes,	761	0	0
Incidental Expenses,	264	0	0
	4,787	0	0

Appendix IV.

Cash Account of the Queen's University, for the year ended 31st March, 1877.

Dr.	£	s.	d.	*Cr.*	£	s.	d.
Forward from last Account,	89	18	7	Official Salaries,	1,293	5	3
Net payments from the Exchequer during the year,	3,957	4	10	Examiners' Stipends,	1,738	15	0
Fees collected during the year,	820	10	0	Examiners' Expenses,	758	2	0
				Medals and Prizes,	674	15	0
				Incidentals,	249	14	7
				Balance at the end of the year,	153	1	7
	4,867	13	5		4,867	13	5

Appendix V.

Meetings of the Senate.

Meeting of Senate and public meeting of the University, June 20, 1876.

Present:

ir Dominic J. Corrigan, bart., M.D., *Vice-Chancellor*, in the chair.
The President of Queen's College, Belfast.
Professor Moffett, LL.D.
The President of Queen's College, Cork.
Professor Redfern, M.D.
Professor Simpson, M.D., F.R.S.
Rev. R. Scott, D.D.
John T. Banks, M.D.
G. Johnstone Stoney, M.A., F.R.S., *Secretary to the University.*

A stated meeting of Senate was subsequently held upon the same day.

Present:

Sir Dominic J. Corrigan, bart., M.D., *Vice-Chancellor*, in the chair.
Professor Moffett, LL.D.
The President of Queen's College, Cork.
Professor Redfern, M.D.
Professor Simpson, M.D., F.R.S.
Rev. Robinson Scott, D.D.
G. Johnstone Stoney, M.A., F.R.S., *Secretary to the University.*

Meeting of Senate, October 10, 1876.

Present:

His Grace the Duke of Leinster, *Chancellor*, in the chair.
Sir Dominic J. Corrigan, bart., M.D., *Vice-Chancellor.*
The Lord Talbot de Malahide, F.R.S.
Professor Moffett, LL.D.
The President of Queen's College, Cork.
Professor Redfern, M.D.
Professor Simpson, M.D., F.R.S.
Sir Robert Kane, LL.D., F.R.S.
A. M. Porter, B.A., Q.C.
David Ross, M.A., LL.B.
John T. Banks, M.D.
G. Johnstone Stoney, M.A., F.R.S., *Secretary to the University.*

Meeting of the Senate and public meeting of the University, October 13, 1876.

Present:

His Grace the Duke of Leinster, *Chancellor*, in the chair.
Sir Dominic J. Corrigan, bart., M.D., *Vice-Chancellor.*
The President of Queen's College, Belfast.
Professor Moffett, LL.D.
The President Queen's College, Cork.
Professor Redfern, M.D.
Professor Maxwell Simpson, M.D., F.R.S.
Sir Robert Kane, LL.D., F.R.S.
The Rev. Robinson Scott, D.D.
Andrew M. Porter, B.A., Q.C.
David Ross, M.A., LL.B.
John T. Banks, M.D.
G. Johnstone Stoney, M.A., F.R.S., *Secretary to the University.*

Meeting of the Senate, January 31, 1877.

Present:

His Grace the Duke of Leinster, *Chancellor*, in the chair.
Sir Dominic J. Corrigan, bart., M.D., *Vice Chancellor.*

Appendix.
V.
Meetings of the Senate.

The President of Queen's College, Belfast.
James Gibson, M.A., Q.C.
Professor Moffett, LL.D.
The President of Queen's College, Cork.
Professor Redfern, M.D.
Sir Robert Kane, LL.D., F.R.S.
Rev. Robinson Scott, D.D.
Andrew M. Porter, B.A., Q.C.
David Ross, LL.B.
John T. Banks, M.D.
G. Johnstone Stoney, M.A., F.R.S., *Secretary to the University.*

Special meeting of Senate, February 21, 1877.

Present:

His Grace the Duke of Leinster, *Chancellor*, in the chair.
Sir Dominic J. Corrigan, bart., M.D., *Vice-Chancellor.*
James Gibson, M.A., Q.C.
The President of Queen's College, Cork.
Professor Simpson, M.D., F.R.S.
Sir Robert Kane, LL.D., F.R.S.
David Ross, M.A., LL.B.
John T. Banks, M.D.
G. Johnstone Stoney, M.A., F.R.S., *Secretary to the University.*

Special meeting of Senate, March 21, 1877.

Present:

His Grace the Duke of Leinster, *Chancellor*, in the chair.
Sir Dominic J. Corrigan, bart., M.D., *Vice-Chancellor.*
The President of Queen's College, Belfast.
The Lord Talbot de Malahide, F.R.S.
James Gibson, M.A., Q.C.
Professor Moffett, LL.D.
The President Queen's College, Cork.
Professor Redfern, M.D.
Professor Simpson, M.D., F.R.S.
Sir Robert Kane, LL.D., F.R.S.
The Rev. Robinson Scott, D.D.
Andrew M. Porter, B.A., Q.C.
David Ross, M.A., LL.B.
G. Johnstone Stoney, M.A., F.R.S., *Secretary to the University.*

Meeting of Senate, April 25, 1877.

Present:

The President of Queen's College, Cork, in the chair.
Professor Moffett, LL.D.
Professor Redfern, M.D.
Sir Robert Kane, LL.D., F.R.S.
Rev. Robinson Scott, D.D.
David Ross, M.A., LL.B.
John T. Banks, M.D.
G. Johnstone Stoney, M.A., F.R.S., *Secretary to the University.*

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